

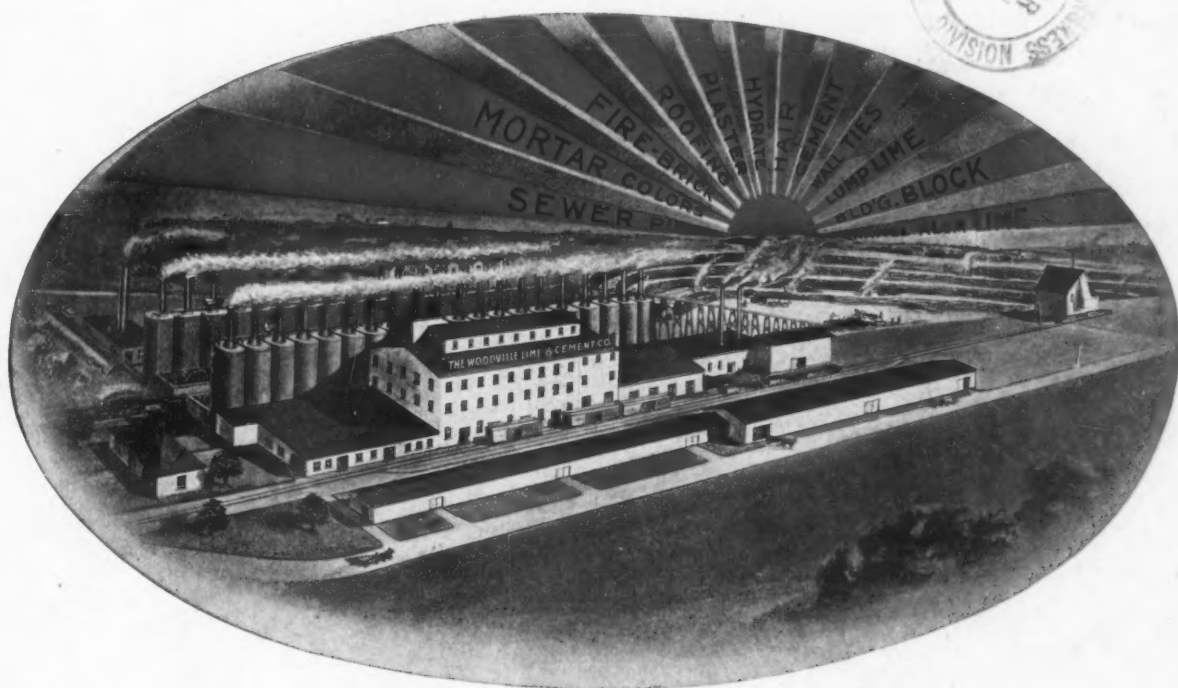
# Rock Products and BUILDING MATERIALS

INCORPORATING DEALERS BUILDING MATERIAL RECORD

Volume XIII.

CHICAGO, ILL., MARCH 7, 1914.

Number 9.



## "THE BEST UNDER THE SUN"

MANUFACTURERS OF

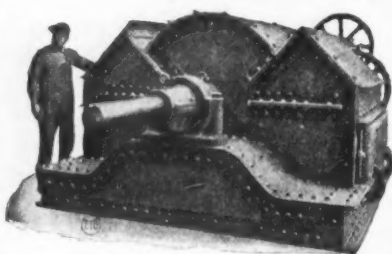
White Enamel Finish Hydrated Lime  
White Lily Finish Hydrated Lime  
Polar Bear "Alca" Stucco  
Enamel "Alca" Plaster  
Lump Lime

WHOLESALE OF

Hard Wall Plaster  
Keene's Cement  
Mortar Colors  
Sewer Pipe  
Roofings

**The Woodville Lime & Cement Company**  
1341-50 Nicholas Bldg., Toledo, Ohio

## "PENNSYLVANIA" HAMMER CRUSHERS



For Pulverizing Lime-  
stone, Lime, Cement Rock,  
Marl, Shale, Etc.

Main Frame of steel, "Ball  
and Socket" Self aligning  
Bearings; forged Steel Shaft;  
Steel Wear Liners; Cage  
adjustable by hand wheel  
while Crusher is running.  
No other hammer Crusher  
has such a big Safety Factor.

**PENNSYLVANIA CRUSHER CO.**  
Philadelphia  
New York Pittsburgh

## SECRET OF FINE GRINDING LIME AND LIMESTONE

AND REDUCING CRUSHER REPAIRS LIES IN  
KEEPING THE HAMMERS CLOSE TO THE GRIND-  
ING SURFACE.

### "PENNSYLVANIA" HAMMER LIME MILLS

embody this and many other good features that make  
them money-makers for Agricultural Lime and Lime-  
stone grinding. Send for catalog.

## PENNSYLVANIA CRUSHER CO.

NEW YORK  
50 Church St.

PHILADELPHIA

PITTSBURGH  
Machinery Bldg.

## THE WHITACRE FIREPROOFING CO.

Manufacturers and Erectors of

## Hollow Tile Fireproofing

The Largest Independent Manufacturers of Hollow  
Tile Fireproofing in the United States.

All our Ohio Product is Manufactured from Pure  
Ohio Fire Clay.

All Size Partitions, Jumbo and Hollow Brick.

Our heavy Dove Tail Hollow Blocks are designed especially  
for fireproof residences with stucco finish. They are suitable  
for any part of the building and are adapted to the various  
architectural designs.

**Without Our Estimate You Have  
No Competition**

General Office: Waynesburg, Ohio  
Chicago Office: Sales Department, 538 So. Dearborn St., Chicago, Ill.  
Factories: Waynesburg, Ohio; Malvern, Ohio; Chicago Heights, Ills.

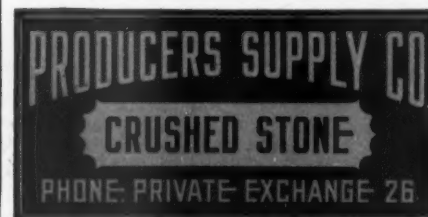


ENAMELED  
STEEL  
EMBOSSED  
METAL  
TIN  
SIGNS

## SIGNS

FOR WAGONS AND  
ADVERTISING

Write for Illustrated  
Folders, Prices, Etc.



SKETCHES  
SENT  
FREE

**ENAMELED STEEL SIGN COMPANY**  
224 N. STATE ST. CHICAGO



## Service

"Service" is the biggest word  
in the Building Material  
Business.

"Wheeling" Wall Plaster  
quality has been proven  
long ago. Now we want  
to prove our "SERVICE."

**Wheeling Wall Plaster Co.**  
Wheeling, W. Va.









*Makes Concrete  
Impervious to  
Water and Prevents  
Efflorescence*



*Free Sample  
and Illustrated  
Booklet Sent  
on Request*

Harbour Commissioners' Elevator No. 2. and Marine Tower, Montreal, Quebec, here illustrated, is the largest concrete grain elevator in the world, having a total capacity of 2,600,000 bushels. It is built of reinforced concrete throughout and in its construction 30,000 lbs. of MEDUSA WATERPROOFING were used. J. S. Metcalf Co., Montreal, Construction Engineers.

Medusa Waterproofing is being used by the foremost Engineers, Architects,  
Railways, Contractors, Block Makers and Cement Experts  
in This and Foreign Countries.

**SANDUSKY PORTLAND CEMENT COMPANY**  
SANDUSKY, OHIO



## **Mr. Dealer!**

### **FIREPROOFING**

It will pay you to handle our "Minerva" fire clay hollow tile **FIREPROOFING** — it's the best made, and our shipments will please you.

Get our prices on our 4x5x12 and 5x8x12 Backup Block and also on our various sizes of partition tile.

We have a nice stock on hand for immediate shipments.

**The Metropolitan Paving Brick Co.**  
Canton, Ohio



## 20th Century Mixers . . . .

Low Hoppers, 27 inch, absolute proportions. Traction continuous, simple, economical. All steel castings except in places not subjected to strain. Reliable, efficient and durable.

WRITE FOR CATALOGUE

## TWENTIETH CENTURY MIXER CO.

FACTORY: CONNERSVILLE, IND.

SALES DEPT.: NORWOOD, OHIO

### Built For Service

Low Hoppers, 27 inch, absolute proportions. Traction continuous, simple, economical. All steel castings except in places not subjected to strain. Reliable, efficient and durable.

## NORTH-WESTERN PORTLAND CEMENT



The Reliable Portland Cement

A Portland Cement for the  
NORTHWEST

**North-Western States Portland  
Cement Co.**  
MASON CITY, IOWA

## "AA" Means "The Best That Can Be Made"

The reason that "CHICAGO AA" dealers continue to enjoy the largest share of the cement business in their respective territory, is due to the User, who during the past fifteen years, has had ample opportunity to acquaint himself with the superiority of this particular brand, and who uses it, in preference to all others.

Besides, we assist the dealer in marketing our product.

*Write for full particulars  
and prices today.*

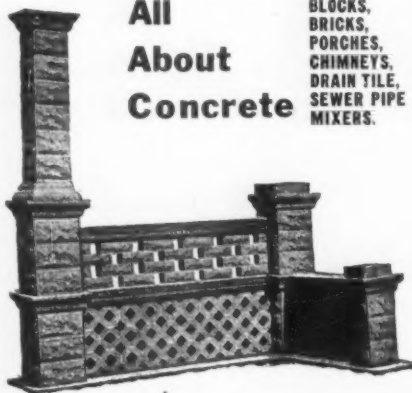
**Chicago Portland  
Cement Co.**

30 No. La Salle St., Chicago



**All  
About  
Concrete**

BLOCKS,  
BRICKS,  
PORCHES,  
CHIMNEYS,  
DRAIN TILE,  
SEWER PIPE  
MIXERS.

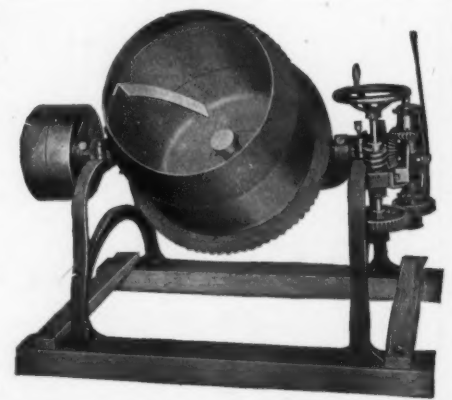


## A FREE BOOK On Concrete Machinery

It isn't exactly a catalog because it gives you the cost of making Concrete Blocks, Bricks, Porches and Chimneys. It tells all about making Drain Tile and Sewer Pipe. How to make them at a good profit, etc.

You should have this 64 Page Book if interested in concrete. Write at once, indicating machine you are mostly interested in.

**W. E. DUNN MFG. CO.**  
4141 Fillmore St. CHICAGO



Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

# OUR BUSINESS CREED

To do the right thing at the right time in the right way.

To do some things better than they were ever done before.

To eliminate errors.

To study both sides of the question.

To be courteous.

To work for love of work.

To anticipate requirements.

To master circumstances

To act by reason rather than by rule.

To be satisfied with nothing short of perfection.

To render the service that satisfies.

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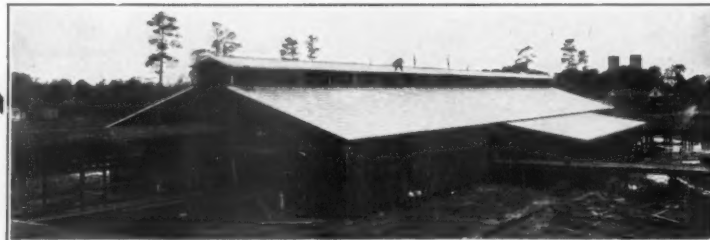
## **Marquette Cement Manufacturing Co.**

**Marquette Building, Chicago, Illinois**

**Works: La Salle, Illinois**



## A BIG MONEY- MAKER FOR DEALERS



J. J. Newman Lumber Co.'s Shed, Hattiesburg, Miss.  
Roofed with J-M Asbestos Roofing.

There is an enormous demand nowadays for a ready roofing that gives perfect fire protection.

J-M Asbestos Roofing is the only roofing that fully satisfies this demand—because it is the only roofing made of that wonderful fireproof substance—*asbestos*. This means that when you sell this roofing *you have no competitor*. And there is a *handsome profit* in every sale.

## J-M ASBESTOS ROOFING

is composed of Asbestos and Trinidad Lake Asphalt. Being *all-mineral* it affords perfect fire protection, never rots, rusts or deteriorates. Therefore, it never needs coating or any other preservative. It is the *cheapest-per-year* roofing on the market. These are selling points that your customers will quickly appreciate.

Our campaign of advertising, costing thousands of dollars a year, is educating people everywhere to the advantages of this roofing. Right in your territory there are scores of property owners, architects and builders who will become live prospects for this roofing the minute you let them know you are handling it. And as we have only *one dealer* in each town, all this good business goes to that dealer! Will that dealer be *YOU*?

**Don't delay. The roofing season is here. Write our nearest branch today for Catalog and Special Dealer Proposition.**

### H. W. JOHNS-MANVILLE CO.

Albany  
Baltimore  
Boston

Buffalo  
Chicago  
Cincinnati

Cleveland  
Dallas  
Detroit

Indianapolis  
Kansas City  
Los Angeles

Louisville  
Milwaukee  
Minneapolis

New Orleans  
New York  
Omaha

Philadelphia  
Pittsburgh  
San Francisco

Seattle  
St. Louis  
Syracuse

The Canadian H. W. Johns-Manville Co., Ltd., Toronto, Montreal, Winnipeg, Vancouver.

1990

A wise man once said:

**"Opportunity knocks but once"—**

We have never had time to prove this statement, but we do know that the following opportunities are knocking loudly to prospective investors.

## NORTH CAROLINA STONE PROPERTIES FOR SALE!

**Located on the Southern Railroad near Piedmont, N. C.  
Due to special circumstances, these properties are  
offered at VERY LOW FIGURES for immediate sale.**

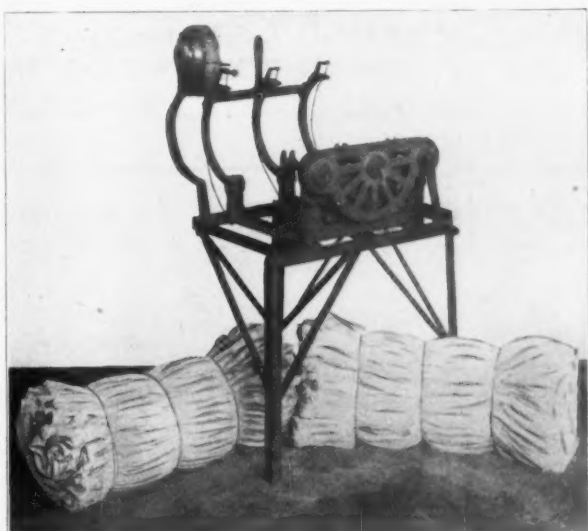
Lime stone property in full operation—put in, in 1911 and 1912—practically new—equipped with boilers, engines, crushers, houses, kilns and all general equipment necessary to turn out a capacity of 5 cars a day. Good market and low cost of production. **VERY LOW PRICE for immediate sale.**

The plant of the Southern Broken Stone Co., consisting of 4 crushers, engines, boilers, storage bins, and all machinery necessary for a daily output of 20 cars of broken stone. In operation at present. An exceptional opportunity for profitable business. **MUST SELL IMMEDIATELY.**

**Write Today for Further Information**

**Address A. F. MESSICK, Winston - Salem, North Carolina**

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



## Securely Tied With Three Wires

The Cost is Nothing Compared to the Money it Saves You in Labor and Accuracy in Count.

"It Counts'em and Bundles'em."

Price \$30.00

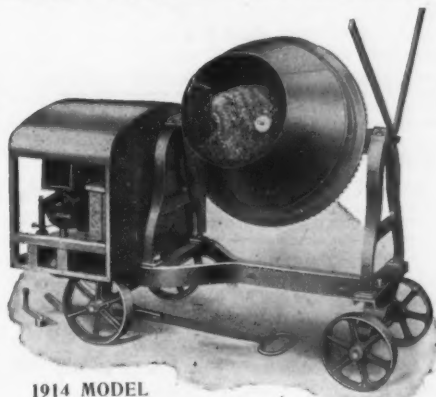
F. O. B. - CLEVELAND

FAEBERHILL MFG. CO. .-. CLEVELAND, OHIO

## STOP! LOOK! LISTEN!

JUST THE MIXER YOU'VE BEEN WISHING FOR

### The BIG-AN-LITTLE



1914 MODEL

Just a Little Bit Better Than The One You Thought Was Best

The small mixer has proved its worth. Contractors see that it pays better to have one or more small portable Mixers, than to mix by hand or to have a great big clumsy Mixer. The question has been to get a Dependable Small Mixer at a Low Price.

The Big-an-Little is the biggest and best small Mixer on Earth and our Low Prices amaze the Mixer world.

Your neighbor has one. They are used everywhere. Ask him. Write us NOW for full particulars.

**JAEGER MACHINE CO.,** 219 W. RICH STREET  
COLUMBUS, OHIO

A-1 Catalog



## Beautiful Houses from Illinois to Massachusetts are Roofed with Reynolds Flexible Asphalt Shingles

A multitude of pretentious residences in a score of states are giving ample proof of the long-lasting surface of Reynolds Flexible Asphalt Shingles.

Every type of modern home can be protected and beautified, at lower cost, with these time-tried, weather-tested shingles. They withstand the ravages of driving rain, pelting hail, hottest sun and heaviest snow without warping, cracking, splitting, curling or blowing off. Sparks cannot set them on fire. Long Exposure cannot dull their rich color. Adaptable to every style of pitched roof, and make possible unusual architectural effects, such as roll edges, thatch effects and rounded corners.

## Reynolds Asphalt Shingles

Guaranteed for 10 years—will wear many years longer—  
Write for liberal agency proposition.

Rough-surfaced weather defiers made of crushed slate or granite securely embedded in pure Asphalt. Natural colors of garnet, red or gray-green which never fade and never need painting. We are the original makers of flexible asphalt slate shingles and tested them for ten years before putting them on the market. They are uniform in size—8 ins. by 12½ ins.—and are laid 4 ins. to the weather. Easily and quickly laid.

Let us send you a booklet showing photographs of modern houses roofed with Reynolds Asphalt Shingles. Write for a copy TODAY.

**H. M. REYNOLDS ASPHALT SHINGLE CO.**  
Original Manufacturer Grand Rapids, Mich.  
Established 1868 Members of National Builders' Supply Association

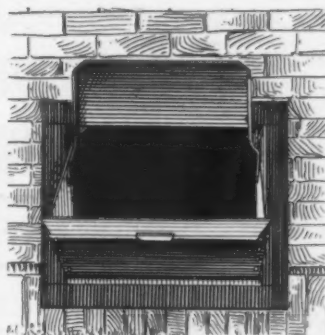
You Can Increase Your Profits  
By Handling

## Kewanee<sup>All</sup> Steel Coal Chutes

It is the only automatic all-steel coal chute on the market. It can't break—there is no cast iron nor glass in its construction.

Locks automatically on the inside and gives absolute protection to the building. Can be opened without crawling through the coal bin.

Furthermore, we are not content with selling you chutes. We help you sell them at a profit. That's what we want to tell you about. Send us a postal today, and full particulars of our "Help the Agent" plan will go to you.



Kewanee All-Steel Coal Chute  
Ready for Coal

**Kewanee Manufacturing Co.**  
Kewanee, Illinois



# SYKES

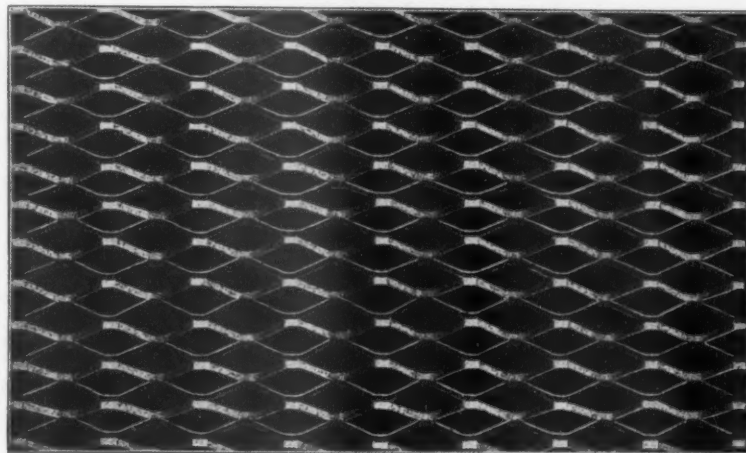
CUP LATH

FURNISHED WITH EITHER AN  
"ANTI-RUST" (OIL) COATING,  
PAINTED BLACK OR  
GALVANIZED

In the process of manufacture we do not stretch the metal thus damaging the fiber, and we give clear evidence of this statement by cutting GALVANIZED sheets without even breaking the coating of spelter.

WRITE us TODAY for prices and samples.

CUP LATH IS AN EXPANDED LATH AND ON ACCOUNT OF ITS PECULIAR FORMATION IS THE MOST RIGID OR STIFFEST EXPANDED LATH ON THE MARKET.



SYKES Expanded Cup Lath "GALVANIZED"

## THE SYKES METAL LATH & ROOFING CO.

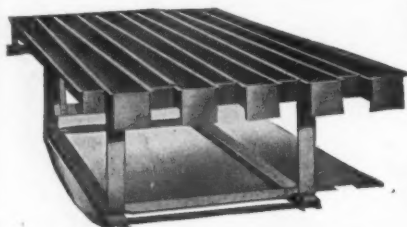
Mention Building Materials

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∴

NILES, OHIO

### THERE IS PROFIT FOR YOU in making and selling "D&A" CEMENT FENCE POSTS



"D&A" TEN-MOLD size all-steel outfit

D. & A. POST MOLD CO.

#### Dealers Wanted

To make "D & A" POSTS you can GUARANTEE and SELL to compete with wood posts 25-30 cents each. "D & A" shape makes Strongest, Lightest and Best Posts with  $\frac{1}{2}$  the labor required by other systems. "D & A" MOLDS COSTS LESS.

Six and TEN-MOLD outfits, 30-mold trucks, ANCHOR, BRACE, also Special Molds, many sizes and lengths in stock. The "SHAKING SYSTEM" makes smooth, dense weatherproof posts.

#### "D&A" CEMENT POSTS used on CATSKILL AQUEDUCT FENCING

N. Y. Board of Water Supply approved "D & A" Posts for other styles specified in contracts on account of the practical and most economical construction of same, being of such shape as will resist an equal strain when applied from any two opposite directions. No weak ways with the "D & A."

#### AM. RY. ENG. ASS'N Endorse the principals of "D&A" MOLDS and POSTS

18 Am. Rys., Concrete Plants, Lumber and Building Material Dealers in all parts of world use "D & A." Advertising and Circulars furnished dealers for FREE distribution.

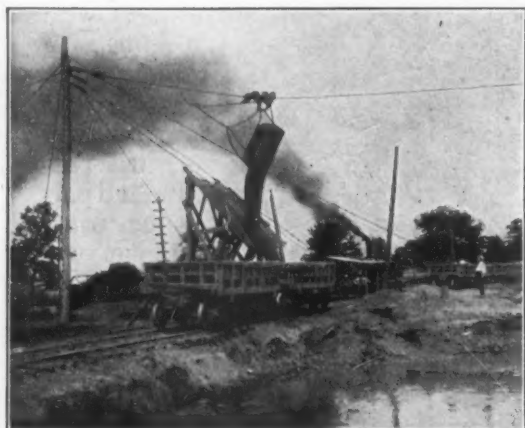
Illustrated Catalogue FREE, describes "D & A" Molds and methods of making posts in detail. Post reinforcement, many kinds, \$2.00 cwt. and up. "D & A" Tie wires for all makes of posts. Get PRICES, liberal Discounts now.

--

P. O. Box 404,

--

THREE RIVERS, MICH.



SHEARER & MAYER

### DRAGLINE CABLEWAY EXCAVATOR

PATENTED

A SIMPLE, RAPID, EFFICIENT, ECONOMICAL MACHINE for digging sand and gravel from wet or dry pits and conveying the material direct to bins, screens, cars or stock piles.

With a double drum hoist this machine will excavate, elevate, convey and dump the material in one continuous forward operation. The bucket can be dumped fast or slow, as the conditions require as the entire operation is under positive control of one operator.

Investigate this machine and see if it is adaptable to your requirements and conditions. Write us for catalog and further information.

**SAUERMAN BROS., 1140 Monadnock Block, CHICAGO**

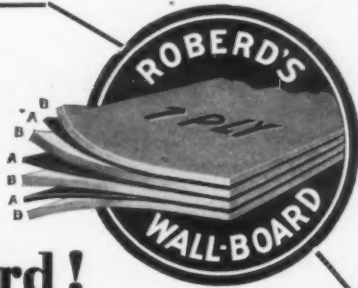
CABLEWAY ENGINEERS AND SELLING AGENTS

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



A-A-A Asphalt Cement  
B-B-B-B Fiber Board

## At Last! Seven Ply Wall Board!



At last you can have a perfect wall board, stiffer, harder, tougher, more easily handled, more quickly applied and more satisfactory when on the walls. We have solved the problem. We are now making

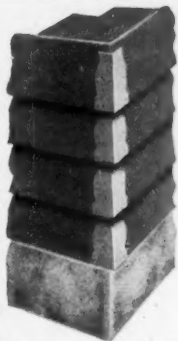
## Roberds Ideal Wall Board

with **FOUR** layers of fibre and **THREE** layers of asphalt adhesive compound. Our discoveries, our special machinery, our secret methods of manufacture and our original asphalt cement make possible the production of this **IDEAL WALL BOARD**.

Dealers everywhere are enthusiastic about it. Contractors prefer it to all other brands. Home owners are delighted with the fine finish and the perfect butting of edges which enables them to paper direct to the wall board.

We have doubled the capacity of our plant to take care of the increasing demand for Roberd's Ideal. No advance in prices. Special inducements to the trade. Write today for our dealers' proposition.

**The Roberds Manufacturing Co.**  
107 Railroad Street MARION, IND.



## KEES METAL Building Corners SELL

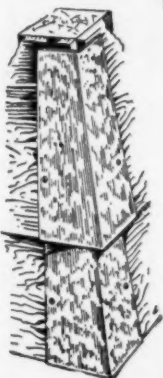
Because they fill the real need. "Mitered" corners for lap siding are popular and attractive but they are hard to make right. The joints are pretty sure to open up.

Kees Corners fit right over the ends of the boards—form a perfect finish. Made of galvanized iron. Painted like wood, they last as long as the building itself.

A Card Will Bring Particulars.  
Write It Right Now.

F.D. KEES <sup>MFG. CO.</sup> BEATRICE, NEB. Box 324

Cut shows outside corner for 6-inch siding. Made also for 4-inch siding, for wide bungalow siding, and for inside angles.



## QUICK SALES--BIG PROFITS

### Metal Mitre Corners

are great favorites with carpenters and builders because they save the trouble of beveling clapboards or siding. They please the home owner for they make a strong, neat corner finish.

Made of No. 28 gauge galvanized iron with special coating of zinc oxide. They hold the paint. Easy to put on and are everlasting. They sell like the hot cakes you've heard about.

### I PAY FREIGHT.

Write now for circular and samples.  
Special prices to dealers.

**H. G. ROBBINS - Kewanna, Ind.**



This truck is operated by the County of Missoula, Montana, in hauling material for road construction

## KisselKar Truck With Hydraulic Dump Body

The patent hydraulic KisselKar dump body shown is used with remarkable success in meeting the transportation requirements of contractors and builders who measure time in dollars and cents.

It is one of the many KisselKar Truck Models that are making money for men in your business.

KisselKar Trucks are good trucks, strong, simple, economical in fuel and tires and responsive to every demand. In more than two hundred lines of business they are being used with the utmost satisfaction to owners.

They are built by a corporation that is here to stay, one which will stand the most rigid inquiry as to its integrity and resources.

## KISSELKAR SERVICE

KisselKar Service is a definite, specific service written into the sale. There is no chance for misunderstanding—the guarantee covers everything plainly.

There are six capacity sizes in KisselKar Trucks—1500 lbs., 1, 1½, 2½, 3½ and 6 tons. Bodies to suit requirements.

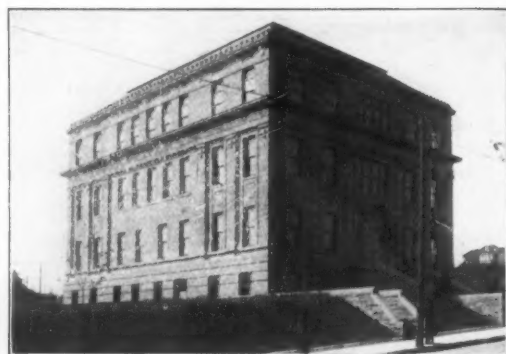
Send for Illustrated Portfolio

## Kissel Motor Car Company

548 Kissel Avenue, HARTFORD, WISCONSIN.

Boston, New York, Chicago, Kansas City, Milwaukee, Minneapolis, St. Paul, San Francisco, Oakland, Los Angeles, Dallas and 300 other American and Canadian points.

# KISSELKAR TRUCKS



Office, Vulcan Iron Works, Wilkesbarre, Pa.  
TIGER BRAND used for both plastering and brick work.

## A Business Proposition

When a building like this is built the purchase of plastering material is a big business proposition.

### Tiger Brand White Rock Finish

Hydrated Lime for White Coat Plastering

is sold for the most conspicuous business buildings in the country.

The architect who builds such buildings chooses TIGER BRAND because it gives unvarying satisfaction to critical business men.

The dealer who handles TIGER BRAND stands the best chance on the big contracts.

**The Kelley Island Lime and Transport Co.**  
CLEVELAND, OHIO

Write us for prices on "BEAR CREEK"  
brand White Lime and "WHITE BEAR"  
Hydrated Lime. Prompt Shipment.

**HANNIBAL LIME CO.** HANNIBAL MO.

## The Lehigh Reasons:

**QUALITY**—Insured by the experts in charge of each stage of manufacture, strength 35% above standard.

**QUANTITY**—Eleven mills with 12,000,000 barrel annual capacity—enough to meet any demand.

**SHIPPING FACILITIES**—Plants stretching from the Atlantic to the Pacific, located on seventeen great railroads, prompt delivery into any territory.

**CO-OPERATION**—With our dealers to sell and with their customers to use properly for best results.

Write for Particulars



**LEHIGH**  
**Portland Cement Co.**

Allentown, Pa. :: Chicago, Ill.



We  
Want  
Dealers

**The TENOLD Drain Tile and  
Sewer Outlet Protector**  
**Keeps Out Animals and Vermin**

Without Obstructing the Free Flow of Water  
INEXPENSIVE. DURABLE

TENOLD BROS., - Northwood, Iowa



"LARGEST TILE KILN  
IN AMERICA"

It Will Pay You to Handle **TILE**  
**THE MODERN FIRE PROOF**  
**BUILDING MATERIAL**

We manufacture all sizes and shapes from the highest grade shale by the most modern process, including backing up, partition, floor arches and hollow brick; also DRAIN TILE.

**AMERICAN CLAY CO.**

25 South Seventh Street

TERRE HAUTE, IND

SAMSON CEMENT  
SAMSON PLASTER  
PEARL HYDRATED LIME  
WATERPROOFING MATERIALS  
BUILDERS' SPECIALTIES

**SEWER-PIPE**  
HOLLOW TILE  
BUILDING BLOCK  
**HOUSTON-BROS. CO. PITTSBURG**

ROOFING SLATE  
BLACK BANGOR AND  
SEA GREEN  
GENASCO & NIAGARA  
ASPHALT ROOFINGS  
ALL SLATERS' SUPPLIES

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



# Rock Products and BUILDING MATERIALS

INCORPORATING DEALERS BUILDING MATERIAL RECORD

Volume XIII.

CHICAGO, MARCH 7, 1914.

Number 9

## THE FRANCIS PUBLISHING COMPANY

EDGAR H. DEFEBAGH, Prest.

Seventh Floor, Ellsworth Bldg., 537 So. Dearborn St., Chicago, Ill., U. S. A.  
Telephone Harrison 8086, 8087 and 8088.

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H. F. AKE, Secretary.

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HARRY B. WARNER, 315 Heed Bldg. Philadelphia, Eastern Representative.

Communications on subjects of interest to any branch of the industry are solicited and will be paid for if available.

Every reader is invited to make the office of Rock Products his headquarters while in Chicago. Editorial and advertising copy should reach this office at least five days preceding publication date.

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In the United States and Possessions and Mexico.....\$2.00  
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Subscriptions are payable in advance, and in default of written orders to the contrary, are continued at our option.  
Advertising rates furnished on application.

Published on the 7th and 22nd of each month.  
Entered as second-class matter July 2, 1907, at the Postoffice at Chicago, Illinois, under Act of March 3, 1879.  
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ROCK PRODUCTS AND BUILDING MATERIALS, which after full deliberation has been selected as our new name, makes its bow with this number to our big family of progressive readers and prosperity boosters throughout the length and breadth of the country. It typifies the expansion and growth of the business of manufacturing, selling and delivering rock products in the form of imperishable building materials, as well as all of the other lines that are a part of the builder's needs. For almost a dozen years we have labored and grown, and set the pace for the prosperity of our big family, and in this new twice-a-month form we have something of the feeling of the belted and knighted veteran at a family reunion in which every member is full of the sentiment of good will, prosperity and expansion. Our expansion is your expansion, for it means twice as much effort, twice as much concentration, and necessarily twice as much results. Let's shake hands upon the resolve of more business for everyone.

Light loads for long hauls is the best plan to break in the teams at the start of the season.

You are going to figure the cost of delivery afterwards in an unpleasant frame of mind if you don't do it before and charge at least the cost.

Waterproofing and frostproofing amount to the same thing sometimes. That is to say, no damage will occur as the result of frost if all the water is excluded, and it is always a good plan to take precautions—cheaper, too, than after treatments.

Provide a full line of specialties which the calls of your customers developed last year. It is a good thing to have a little diary book at your elbow all the time to jot down the items called for by your customers which you are unprepared to sell. This will give you a line as to what will be wanted and what to provide to increase your sales. It works out all right.

Cheap concrete costs more in the long run than good concrete. The best obtainable is plenty cheap enough for any sensible man.

The time for general stocking up in the great staples, cement, lime and plaster, is here. The first big tonnages of the coming season will soon be moving. Get in while the water's fine.

Steel structures with the principal bearing members embedded in concrete make the nearest fireproof method for tall buildings unless these essentials be made of reinforced concrete.

Evidence of large demands for building materials is shown in the recent opening of eastern steel plant furnaces, many of which were closed during the winter. They report orders coming in from all parts of the country.

Instruct your contractor customers to use cement mortar carrying 15 per cent of hydrated lime below ground, and hydrated lime mortar carrying 15 per cent of portland cement above ground, and if they do it they will be grateful afterwards.

Opportunities present themselves daily for augmenting the profits of your company. Many of them are not grasped because of unpreparedness on your part. Systematize your yard and office so that advantage can be taken of these opportunities.

Acquire knowledge of the materials you sell. Your sales might have been larger last year if your knowledge had been greater. Every progressive dealer should spend at least a few hours each month reading publications that contain information relative to building materials.

Push plaster board into all the quick little jobs at the beginning of the season, so that your smaller contractors can work up some early speed and so accumulate enthusiasm. Enthusiasm is the juice of team work, and we all know what that is good for. Is it not dividends?

The best practical way to tell when the footing for a foundation is deep enough to be safe from frost expansion is to keep the digging process going until dry, hard dirt is reached. Usually this is between three and four feet down from the surface in all locations north of the Ohio River. But, no matter what the depth may be, a concrete footing is safe after all evidence of water penetration is passed.

The reason business men organize themselves into associations such as the New York State Builders' Supply Association, the New England Builders' Supply Association, the Ohio Builders' Supply Association, the National Builders' Supply Association and kindred organizations is that by getting together occasionally and discussing the methods of sale and delivery and such other subjects as are of interest to their particular industry they are enabled to save both time and money. The benefits of fellowship with dealers in your line of business is worth acquiring. Everything is to be gained and the small fee required as membership dues by these organizations cannot be considered a loss, but a very good investment. The emoluments of trade organizations are many and therefore every building material dealer ought to join his local, state and national organizations.



# National Builders' Supply Association

## Demand That Present Railroad Service Continue

Officers of N. B. S. A. to Appear Before Interstate Commerce Commission and Oppose Attempt to Charge for Placing Cars.

The question of permitting the railroads to charge fees for spotting cars on the private sidings and tracks of receivers of freight in carload lots, which is now being considered by the Interstate Commerce Commission, gives an exceptional opportunity to the National Builders' Supply Association to demonstrate its benefits to the building material industry.

The question has been brought before the commission by railroad officials, and it is doubtful what action may be taken; but the fact that the building material industry has an organization like the National Builders' Supply Association to represent it is evidence that any argument that might be presented will be heard. The commission does receive and weigh the complaints of individuals affected by the interstate commerce laws; but how much more faith they must put in an organization that represents the entire trade.

The railroads claim that they should be paid an additional amount for placing cars at warehouses of the recipients of freight. They insist that it has been their loss that charges have not been made heretofore. They propose to place the cars on the sidings, but an extra charge should be made for hauling the car or cars to the warehouse or at any given point upon the siding.

One of the arguments the railroads will use is that a number of freight receivers believe that the demand is just and that the railroads are entitled to the spotting charge. Receivers of freight who will agree with the railroads on this point are large concerns who are equipped with locomotives and other necessary facilities to do their own switching and spotting. In fact, they are in the habit of doing it now. The proposed change in the law will not affect them in any manner.

It is the concern that cannot afford to install railroad equipment for its private use and which does not require much spotting that will be called upon to pay the charges, if the proposed law is passed. Building material men will be affected by this law, as will possibly few others. The building material industry demands the use of a large percentage of freight cars. Practically every dealer has his private track—and in most cases a siding is necessary.

The demands of the railroad companies will not be granted if the arguments of officers of the National Builders' Supply Association are heeded. For members of this organization have asked for an opportunity to present their side of the question some time in April. It is hoped that the commission will wait until then before rendering its decision and that the dealers will be given a hearing.

As president of the organization, Edward K. Cormack, of the Wisconsin Lime & Cement Co., Chicago, sent the following request to James H. Harlan, who is at the head of the commission:

"The National Builders' Supply Association representing thousands of small dealers located throughout the United States and having their own industrial sidings and tracks, request that nothing be done to change the status of the service at present being rendered by the railroads to industrial sidings. We desire to prepare and present our side of this question. Would appreciate having an opportunity to do this during April. Advise what we may expect."

Mr. Cormack had not been in office long before

he was called upon to protect building material dealers in the above-mentioned manner. Members of the N. B. S. A. will recognize his alertness and will support him in his arguments before the Interstate Commerce Commission.

## Cormack and Casson at New Orleans.

So deeply impressed was Walter F. Jahncke, of Fritz Jahncke, Inc., New Orleans, La., with the interesting address made by President Cormack and Herbert N. Casson at the recent convention of the National Builders' Supply Association, that he prevailed upon them to go to New Orleans and deliver an address to the members of the Contractors' and Dealers' Exchange, of which Mr. Jahncke is president. It is understood that President Cormack's address will be on the subject of "Co-operation Among Dealers in National and Local Associations." Mr. Casson will speak on "Better Feeling Between the Manufacturer and the Supply Man, and Between the Supply Man and the Contractor."

New Orleans dealers are elated because of the recognition their city has been given by the National Builders' Supply Association in the election of officers. Mr. Jahncke was elected to serve his sixth term as a member of the executive board, and John J. Voekel, president of the J. J. Clarke Co., was chosen for the responsible position of treasurer.

In a recent issue of "Building Review," which is published by the Dealers' Exchange, excerpts from Mr. Casson's address at Chicago were printed. They dwelt particularly on the remarks Mr. Casson made relative to aggressiveness and to price cutting.

## Kentucky Lumber Dealers Hold Convention.

The annual convention of the Kentucky Retail Lumber Dealers' Association was held at Lexington, Ky., February 18 and 19, with about 200 members and others interested in the retail lumber business registered. The session was opened with a presentation of the gavel to the president, E. H. Elliott, by Judge John E. Garner, of Winchester.

A committee on building and loan associations composed of Brown Y. Willis, of Nicholasville; F. E. Drake, of Owensboro, and J. W. Scobee, of Winchester, was appointed. The duty of this committee will be to draft plans for an ideal building and loan association.

The reports of a number of committees were heard and a resolution presented by the committee on resolutions, composed of F. E. Drake, of Owensboro; G. R. Lyons, of Frankfort, and W. K. Hall, of Fulton, was adopted, in which the thanks of the association were extended to L. M. Moore and the committee on arrangements, the Phoenix Hotel management, President E. H. Elliott, Judge J. E. Garner and all persons who made addresses at the meeting.

Officers for the ensuing year were elected and installed at the second and last day's session of the association. W. K. Hall, of the W. K. Hall Lumber Company, of Fulton, was advanced from the office of first vice-president to the presidency; the second vice-president, Emil Anderson, of Louisville, was made first vice-president; L. M. Moore, of the Hendricks-Moore-Young Lumber Co., of Lexington, was

advanced from a directorship to the second vice-presidency, and J. Crow Taylor, of Louisville, former president, took Mr. Moore's place on the board of directors. Mr. Taylor's appointment was made at a special meeting of the board of directors.

The visitors were given a banquet at the Phoenix Hotel, at which George P. Hunt presided as toastmaster. After the banquet the guests were escorted to the Ben Ali Theater, where they were the guests of Manager C. H. Berryman.

Louisville was chosen as the place of the 1915 meeting.

## Aim to Get Better Acquainted.

One of the features of the annual convention of the New York States Builders' Supply Association will be the distribution of identification badges. These badges will be of such a nature that at a mere glance the names of the wearers will be made known.

A noonday luncheon is another feature of the program and the mayor of Rochester, Hiram H. Edgerton, is scheduled for an after-luncheon talk.

Arrangements have been made whereby a motion picture exhibit will show the different stages in the manufacture of Portland cement. These illustrations will be accompanied by a lecture delivered by an expert.

Addresses on "The Compensation Law," "The Proposed Lien Law," and "Coal and Ice Departments in Connection With the Builders' Supply Business" will be features of the program. Officers of the association are kept busy putting the finishing touches to this program and, when the convention is called on March 18, will have a list of speakers and attractions which will benefit every building material dealer who attends. There will be at least one session during the convention put aside for dealers, and during this session matters of importance to every dealer in the state will be discussed.

To be sure that the most possible good for the largest number of retailers will result from this meeting, officers of this association have invited every dealer in New York, whether he is a member of the association or not, to attend the convention. They have termed the annual meeting "Your Convention," and want every dealer in the state to feel that it is his personal business to be there.

In connection with the convention there will be an extensive exhibit of building materials, both commodities and specialties.

## Pennsylvania Lumber Dealers Meet.

The convention of the Retail Lumber Dealers' Association of Pennsylvania at the Monongahela House, held February 11 and 12, in Pittsburgh, Pa., was in many respects the most successful ever held. Charles A. O'Brien welcomed the lumbermen on behalf of Mayor Joseph G. Armstrong. The talk of President Frank E. Lillo was very helpful and right to the point. Secretary H. V. S. Lord reported a gain of 27 members during the year ending with the convention and said that nine meetings of the board of directors were held, three each in Erie, Oil City and Beaver Falls, Pa. The treasurer's report showed a substantial balance in the treasury. On Tuesday evening the Pittsburgh wholesalers entertained the retailers at the Monongahela House with a "dry" Dutch lunch and a splendid vaudeville entertainment.

## THE RETAILER

### Service is Principal Feature of Motor Trucks

**James C. Goff Co., of Providence, R. I., Installs Three Machines and Claims to Have Best Delivery System in New England.**

In explaining why the James C. Goff Co. building material dealer of Providence, R. I., uses three motor trucks in the delivery of its supplies, Mr. Charles M. Kelly, president of the company, says that it is service that prompted this investment on the part of this company.

Being desirous of delivering the materials ordered with all possible speed, in order that customers might be perfectly satisfied, the officers of this company made an investment in September, 1911, when they bought the first motor truck. After trying out the truck for twelve months, a second one was bought in September, 1912. In July, 1913, a third truck was purchased and now with the battery of three motor trucks and the same team equipment which this company had before purchasing the first truck, Mr. Kelly declares that the Goff Co. is in a position to give the best delivery service in New England.

Previous to installing the motor trucks, the Goff Co. was forced to hire extra teams to deliver building materials. When asked whether there was a saving over the old system, Mr. Kelly declares "It is not what the motor trucks or teams cost, it is the results secured that proves whether the investment is a good one or not. The advertising feature of the motor truck is worthy of consideration. We believe that the advertising carried on a motor truck is worth between \$600 and \$700 per year; it is working for you in a splendid way whenever in use. This is practically the only kind of advertising we do. Our trucks are painted once a year and washed every day, so that they may present a neat and attractive appearance. Twice a year they are varnished. If motor trucks are to be bought and used, they should be kept in the

best possible condition, so that in addition to their ability to deliver goods, they serve, as an advertisement."

The accompanying illustration shows one of these motor trucks in front of the office of the Goff Co. at Providence. In the distance can be seen a portion of one of the warehouses of this company. To the left an idea can be gained of the sheds used for the protection of materials which do not require the perfectly dry condition of the warehouse.

As a demonstration of the service possible with a motor truck, Mr. Kelly tells of an order which was delivered on record breaking time. The order was received at the yard for 1,000 fire brick to be delivered at the earliest possible moment at a point four and one-half miles distant from the yard. One of the motor trucks was pressed into service, and 59 minutes from the time the order was given, the brick had been unloaded and the truck started on its return trip. "Giving service in this manner is one of the prominent features of your business," says Mr. Kelly. "Pleasing your customers is a sure way to hold them. In such instances as this the question of whether the investment is worth while can not be answered in actual dollars and cents, but credit must be given to this method of delivery."

Carrying out the idea of doing everything in the best possible manner, the Goff Co. have just finished a fireproof garage, in which the machines are kept when not in actual use. The garage is constructed of brick and concrete with a steel sash. It is 70 feet long and 32 feet wide. Unlike most garages which are cold and undesirable to work in, the Goff Co. has been provided with hot water heating equipment.

One of the best known men in both the wholesale and retail builders' supply trade in Philadelphia is J. L. Durnell, manager of the retail department of the Charles Warner Co., Thirtieth and Spruce streets, who has been connected with the builders' supply business for the past 19 years.



J. L. DURNELL, MANAGER, RETAIL DEPARTMENT, CHARLES WARNER CO., PHILADELPHIA.

He was secretary of the Philadelphia Builders' Supply Association for four years; its president for two years and is at present a member of the executive committee, actively engaged in the work of the Association. Mr. Durnell recently made a trip to Europe and South America to investigate conditions regarding the manufacture and sale of lime in those countries.

Charles Warner, the Wilmington, Del., builders' supply man, believes this is an ideal time for vacations. He is at present in Bermuda.

George W. Ruth, of Nashville, Tenn., who was formerly with the Gray-Dudley Hardware Company, has opened offices at 41 Noel Block, as a manufacturers' representative, dealing in building materials, fire prevention devices and related hardware specialties.

L. M. Parsons, who recently resigned his connection with Owen Tyler, Louisville, Ky., after several years with that well-known building material man, has become sales manager of the newly-established building material department of the United Cement & Lime Co.

Donald McDonald, who has been for some time the general sales manager for the R. B. Tyler Co., Louisville, Ky., specializing on the lines of building brick handled by that concern, resigned his position recently, in order to accept an offer which it is understood will take him out of the building line entirely, as well as away from Louisville, to an Eastern city. His new connection is not ready for announcement, however. He has been succeeded with the Tyler Company by H. H. Frazer, who was Tyler Company, returned early in February from his assistant. Mr. McDonald, manager of the R. B. his honeymoon at Ft. Myers, Fla., not seeming to mind particularly the very untropical weather which he ran into in Louisville.



ONE OF THREE "SERVICE GIVERS" EMPLOYED BY JAMES C. GOFF CO., PROVIDENCE, R. I., READY TO LEAVE THE YARD.



# Detroit Companies in \$2,500,000 Consolidation

Merging of C. H. Little Co. and Malcomson-Houghten Co. Brings Together Leading Building Material Men in Michigan's Leading Metropolis.

The merging of the business and interests of the C. H. Little Co. and the Malcomson-Houghten Co., builders' supply and coal dealers of Detroit, under the name of the United Fuel and Supply Co., gives to Detroit one of the largest and most efficient organizations in the country devoted to the supplying of fuel and building supplies. It brings into one organization a company of men who have achieved remarkable individual successes in their chosen fields of activity, and who create in the United Fuel and Supply Co. a unit of efficiency and effectiveness that will rank with the foremost enterprises of the day.

The corporate existence of the United Fuel and Supply Co. dates from Tuesday, Feb. 10, when the stockholders met and formally selected their board of directors and elected officers.

The new concern, which represents an investment of \$2,500,000 and controls a large share of the builders' supply and fuel trades of Detroit, will have its offices in the quarters of the Malcomson-Houghten Co., on the second floor of the Free Press Building, the C. H. Little Co. offices moving from the Penobscot building. The officers and directors of the new company are: President and general manager, C. N. Ray; vice-president and treasurer, Alexander Y. Malcomson; secretary, Edwin D. Merritt; assistant secretary and treasurer, George F. Barr; other directors, Charles Heiden, C. P. Steinheiser, William R. Johnson, Jr., John M. McKerchey and Porter A. Tucker. The directors, however, have selected an executive board, upon which will devolve the more direct responsibility of the company's general business. This executive board is composed of Messrs. Ray, Malcomson, McKerchey, Heiden and Steinheiser. Other officers of the new company are, James C. Adams, manager of sales, building material department; Charles Heiden, equipment superintendent; Ora A. Montgomery, office manager; Edward J. Tisdelle, in charge of coal sales; Porter A. Tucker, assistant secretary; James A. Moreton, auditor; C. P. Steinheiser, manager clay products department; John M. McKerchey, in charge of marine department and George H. Harkness, auditor.

The C. H. Little Co., starting in 1856, has, in the course of 58 years, built the most substantial and leading supply business in the state of Michigan. Its founder, the late Charles H. Little, was a man of great energy and ability, whose straight-



CORNELIUS N. RAY, PRESIDENT AND GENERAL MANAGER.

forward business methods, with strict integrity, gained him the support of the best contractors and manufacturers at home and abroad. He left a record and business of which his family and business associates may be justly proud. The company's yards, docks, boats and handling equipment have kept pace with the city and represent the efficiency ideal of its executives.

The remarkable success which the C. H. Little Co. achieved, particularly in recent years, is due in a large measure to the magnificent enterprise of its president and general manager, Mr. Ray. His knowledge of men, his thorough conception of the high standards of business integrity, and his comprehensive knowledge of business generally, has made him one of Detroit's foremost captains of industry. In the development of the business of the C. H. Little Co., Mr. Ray established ideals of efficiency that made it possible for the company to not only always keep pace with the demands made on it, but also to anticipate and adequately prepare to cope with the demands of the future. The company brings to the United Fuel & Supply Co. the most substantial and biggest building supply business in Michigan. The post of president

and general manager of the United Fuel & Supply Co. requires the services of a big man. In Cornelius N. Ray the company has a chief executive who will more than justify the high opinion that is held of him by his many business associates in Detroit, Mich. and throughout the country generally.

The Malcomson Coal Co. has grown from a modest beginning to the large volume of business handled first by that company and then the Malcomson-Houghten Co. At the head of these concerns has been Alexander Y. Malcomson. Mr. Malcomson's success in the coal business has been little short of phenomenal. By his own energy and individual talents he has created, from a small beginning, a business that has made his name a familiar one among the coal interests of the entire country. His record of achievements in the past fifteen months is a remarkable one. Within that period, he took over the Houghten building supply interests and then was active in the merging of the Malcomson-Houghten Co., of which he was president with the C. H. Little Co. It is a large task that will be his in the United Fuel & Supply Co. As vice-president and treasurer he will be in direct personal charge of the company's coal business, and, in addition, will have supervision over all of the company's real estate interests, the rebuilding and developing of its plants, developing and extending the equipment, the laying out of yards, railroads and docks, building trestles and designing buildings. Mr. Malcomson enters on the work of the great new corporation with an enthusiasm and a zeal that bids fair to make for the United Fuel & Supply Co. a record surpassing that which he created for the Malcomson Coal Co., and, more recently, the Malcomson-Houghten Co.

The Steinheiser family have been in the clay products business since 1868, when Henry J. Steinheiser, the father of Christian P., made his modest start. In his hands the business grew steadily and Steinheiser crocks years ago acquired an enviable reputation. C. P. Steinheiser is another of Detroit's best known and most progressive business men. He is widely known as an eminently successful sewer crock merchant. Joining forces with the Malcomson-Houghten Co. he became its vice-president, and now becomes director and prominent stockholder in the United Fuel & Supply Co., giving it the advantage of his special knowledge of crock and other clay products.



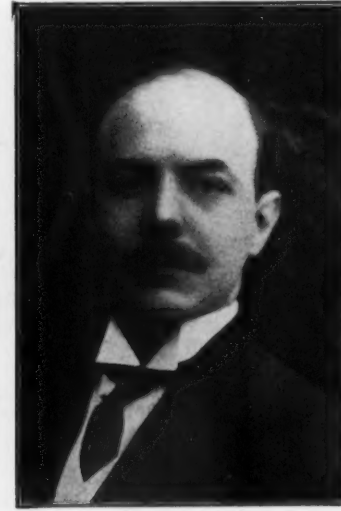
A. Y. MALCOMSON, VICE-PRESIDENT.



E. D. MERRITT, SECRETARY.



G. F. BARR, ASST. TREASURER.



J. C. ADAMS, SALES MANAGER, BUILDING MATERIALS DEPARTMENT.





PORTER TUCKER, ASST. SECRETARY.

CHARLES HEIDEN, EQUIPMENT SUPER-  
INTENDENT.C. P. STEINHEISER, MANAGER, CLAY  
PRODUCTS DEPARTMENT.

In another part of the country, but established as long a time as those businesses already mentioned, is the W. R. Johnson Coal Co., of Montgomery, W. Va., of which William R. Johnson, Jr., is president. Mr. Johnson is a large stockholder and director in the new company, has had a valuable experience in large coal operations, and knows intimately the needs of the Detroit market.

Mr. Charles Heiden, equipment superintendent, has dealt in sand and gravel for 35 years. He was a member of Gutow & Heiden until 1898 and since that time has been a valuable factor in the success of the C. H. Little Co. He is a stockholder and director in the United Fuel & Supply Co., and in addition to being superintendent of the company's equipment, he is also charged with the responsibility of looking after the company's plaster mills.

Mr. James C. Adams, who will have charge of the sales of all building materials, will bring to this position a wealth of experience derived from a lifetime of work in the building supply business. He was in charge of that part of the Malcomson-Houghten Co. business and one of its stockholders and directors, associating with it in the spring of 1913. Prior to that time he was secretary-treasurer of the D. J. Kennedy Co., Pittsburgh's leading building supply house, and is favorably known among the supply men all over the country.

John M. McKerehey, who will be in charge of the marine department, has had a wide and successful experience. Since his association with the C. H.

Little Co. his work in connection with the company's boats and marine gravel deposits has produced wonderful results. He will, as director and stockholder of the new company, continue his services as superintendent of the marine interests. Under his direction the United Fuel & Supply Co.'s marine business is going to be developed along broad lines.

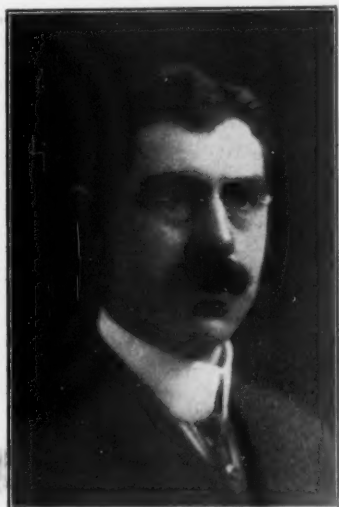
Edwin D. Merritt, the new secretary, will give the United Fuel & Supply Co. the benefit of his valuable experience as secretary-treasurer and manager of the credit department of the C. H. Little Co. He is also a large stockholder and director in the United Fuel & Supply Co. As secretary, Mr. Merritt will have direct charge of the credit department of the new company. He has a most intimate knowledge of the men engaged in the various lines of business that will make demands on the United Fuel & Supply Co.

In this day of progress and development, it is the organization that is composed of men who can keep pace with the rapid strides of modern business and industry, that receives the first call from the community in which it is located, and also in that wider sphere to which its influence extends. Thus the United Fuel & Supply Co., composed as it is of individuals who have been accustomed to accomplishing big things, and who have determined to do still greater things, has a future that is as certain of memorable achievement as its predecessors, the C. H. Little Co. and the Malcomson-Houghten Co.,

are certain of their accomplishments and records of the past.

The United Fuel & Supply Co. will prove one of the most important factors in the upbuilding of Detroit. It places at the service of the builder and of the consumer of fuel 1,000 employees, 500 horses, 7 docks, 24 locomotives and unloading cranes, 2,000,000 tons of storage capacity, 1,000 acres of bank sand and gravel land, 100 acres of city property and dock property, 25 salesmen with autos, 5 plaster mills, wagon and blacksmith shops, 27 yards, 400 wagons, 6 boats, 12 dumping and auto trucks, 50 miles of railroad siding, 7 sand and gravel pits, 100 auto capacity garage, 20 telephone trunk lines, 50 gravity coal and sand chutes, and a tremendous amount of other material and equipment.

Thus organizing the business interests of the C. H. Little Co. and the Malcomson-Houghten Co. into one compact, purposeful and efficient unit, duplication is avoided, and a considerable amount of expense and unnecessary labor is saved. This will all inure to the benefit of the contractor and consumer, for where the United Fuel & Supply Co. can create a saving in cost of handling and production, the contractor, consumer, and supply man will receive the benefit of it. This great organization will also make it possible for builders to expedite their operations to a marked degree. Detroit needs just such an organization as the United Fuel & Supply Co.

JOHN M'KERCHEY, MARINE DEPART-  
MENT.E. J. TISDELE, SALES MANAGER.  
COAL DEPARTMENT.

O. A. MONTGOMERY, OFFICE MANAGER.

# New England Builders' Supply Men at Worcester

Annual Convention of the New England Builders' Supply Association Exhibits Progressive Spirit and Thriving Growth of a Broad Co-operative Policy. Charles M. Kelly, of Providence, Re-elected President.

The third annual meeting of the New England Builders' Supply Association was held at Worcester, Mass., at the Hotel Bancroft, Thursday and Friday, February 26 and 27. The members began to arrive early during Thursday morning, spending the time renewing their acquaintance.

The executive committee held a meeting during the first morning. At 1:30 p. m. the meeting of the association was called to order by President Charles M. Kelly, of the James C. Goff Company, Providence, R. I. The calling of the roll and the reading of the minutes being dispensed with, the reports of the secretary and treasurer were read and accepted.

R. H. Whitney stated the necessity of his close attention to business prevented him from continuing in the position of secretary, therefore he placed his resignation before the meeting. The resignation was tabled.

The treasurer's report showed a healthy condition of the association.

President Kelly spoke, congratulating the members upon the good attendance and the assistance given by the members to the officers in furthering the success of the association. This, the third convention, finds the New England Builders' Supply Association in a successful condition, having members from all parts of New England.

## Increase in Membership.

Secretary Whitney made a report that the association had shown a substantial increase in membership during the past year, the officers of the association have appealed to a large number of building material dealers in the territory to join the association, meeting with success. They have also called upon a number of the manufacturers of building material with a view of having closer relations existing between the manufacturers and dealers. The association considers that with closer relations between the manufacturer and the dealer better progress will be made in marketing the products.

President Kelly introduced Harold E. Hiltz, the good roads expert of the Association of American Portland Cement Manufacturers, who read a paper on "Good Roads," which is being strongly brought out throughout the country.

## Concrete Roads As a Help to Dealers.

The history of all civilized people, from the most remote times, teaches us that the wealth and power of a great nation depend to a large extent on the planning and development of permanent highways. The Persians, Egyptians and Carthaginians were builders of highways, but the Romans to a much larger degree were "good roads" enthusiasts. They developed a system of good roads some 50,000 miles long and were thus enabled to handle commerce and dispatch troops with promptness to the extreme limits of the empire. They believed in mortar bound stone roads and made them from 3 to 5 feet thick. Estimates of their cost range anywhere from \$40,000 to \$150,000 per mile, but due to the quality of the mortar some engineers believe that they would not last longer than half a day under present-day trunk line traffic.

The middle ages saw the decadence of road building as a great national undertaking, and not until the time of Napoleon have we record of a systematic attempt to use road building as a means of uniting a great empire. During the latter part of the eighteenth and the beginning of the nineteenth centuries road building gradually crystallized into the waterbound macadam and Telford types and they were considered to represent the best standard practice up to the beginning of the present decade. They were economical and suc-

cessful for light, low speed traffic conditions where iron-bound traffic was used. With the advent of the automobile and the automobile truck they have rapidly disintegrated and their foundations have not proven strong enough to prevent rutting. We of necessity must gravitate to the scheme of the old Romans and supply a strong and firm base. We must furnish our roads with a binding material which remains permanently the same throughout the year, a binding material which will withstand wind, wear and weather and which will prevent the stones from becoming dislodged by either heavy horse-drawn or motor-driven vehicles. Portland cement is the only binder known which will answer these requirements, its binding qualities remain the same in hot, cold or damp weather and concrete actually grows stronger with age. For heavy traffic conditions it is an ideal pavement. It does not become soft in summer or brittle in winter; it is neither slippery in wet weather nor dusty in dry, and due to its small crown and even surface it presents the maximum surface and the lowest tractive resistance to traffic, thus reducing wear and tear on the heavy motor trucks to a minimum.

It has been stated on good authority recently that the interests and activity of highway engineers and the representatives of the large commercial interests are very intimately associated and that there should be of necessity a decided spirit of coöperation manifested. There is not a dealer at this convention who does not realize that the success of his business will, in the future, depend to a large extent on first the widening of his zone of trade and second on the ease and economy of reaching his customers with quickness and dispatch. It is also evident that the motor truck will be the dealer's transportation medium in the future. There are, however, conditions which must be distinctly bettered before the motor truck can use our roads universally.

The profits in your business depend on the loads your teams or motor trucks can handle and the speed with which they can be delivered. It takes five times as much power to draw a load over a clay road as on one of concrete, three times as much on the best gravel and about twice as much on a good macadam. This does not include the power necessary to haul your loads out of the mud or sand holes or the loss due to the heavy wear and tear on the truck machinery due to the grinding action of dust and sand. The logical remedy to apply to your heavy hauling charges is to construct roads that do not rut or grind to powder if such permanent roads can be built without imposing an excessive burden on your respective communities.

## Speed and Load Should Be Limited.

The international permanent commission has stated as its opinion that there should be a restriction imposed as to the heaviest loaded axle and as to the maximum speed, with special permission for exceeding the restrictions. The point in exceeding the restriction is the joker; one traction engine with grooved wheels can do more damage to some of our improved roads than can tens of motor trucks. It is a shortsighted policy to say that the motor trucks are destroying the highways, therefore we will allow no more motor trucks to be built or we will impose prohibitive restrictions on them. Figures show that this policy cannot long survive, and conservative estimates point to the fact that by 1930 the traffic in the cities and suburbs of over 25,000 inhabitants will be completely motorized and that the horse will enjoy a back-to-the-farm-and-plow movement.

When the freight which a railroad is called upon

to carry becomes so great that its equipment is inadequate or when it decides that more modern and heavier equipment will effect an economy it does not refuse to carry freight or to secure more modern equipment—the railroad builds better roads, lays better rails and strengthens its bridges. The highway problem will be solved in the same way by the construction of permanent roads and stronger bridges.

By good roads we mean that they shall remain as satisfactory in the spring as in any other period of the year. The peak of your heavy load business may be reached in the spring of the year, and yet at this period our average roads are at their worst. Concrete highways are as smooth and serviceable in the spring as they are in July or August. There is a complete divorce of hub and mud.

Your civic pride and your civic pocketbook should be interested in concrete roads and pavements. The antagonism shown toward the good roads movement is in a large measure due to the fact that the maintenance costs on our improved roads is so high. Some people are prone to say that the maintenance grows more and the roads grow worse so it would seem wise to stop building roads. The common method of promoting and constructing many roads at the present time reads something like this:

## Common Methods of Promoting Good Roads.

1. Issue 30 or 50-year bonds at interest rates of from 4 to 5 per cent.
2. Construct a road costing from \$9,000 to \$12,000 per mile.
3. After the second year maintenance charges will run from \$750 to \$1,000 per mile per year.
4. Road will have to be reconstructed at the end of from 5 to 8 years.

If one of you used the same method in your business, how long would it be before you were either in jail or the river?

As against this we submit the proposition of constructing permanent roads of Portland cement concrete:

1. By issuing bonds for 30-year periods.
2. Constructing a permanent road at costs of from \$12,500 to \$14,500 per mile.
3. Surface maintenance charges of from \$10 to \$28 per mile.
4. Having a road at the end of the life of your bonds.

I have spoken at length on the civic side of the question. There is, however, the more important question of the benefit to the dealer with reference to sales. Every mile of concrete road 16 feet wide requires about 2,000 tons of broken stone or gravel, 1,000 tons of sand and 3,500 barrels of cement. All of these materials can be obtained through local dealers and inasmuch as the process is unpatented a local contractor can do the work.

The concrete road is the most economical of any permanent roadway and in the promotion of this class of pavement the selfish motive of pure sales can be eliminated. They should appeal to you because they mean the widening of your immediate sales territory, they induce rapid suburban development and they enable you to haul heavier loads at less cost and at greater speeds during all seasons of the year. They mean clean highways, greater ease of communication, the appreciation of land values and more economical hauls for all classes of traffic. They stop the heavy maintenance leaks and insure good roads and let us hope eliminate the good graft.

Our posterity will not be burdened with a debt from which they have received no benefit.

The increased mileage of concrete roads will mean to the members of this association a wider, more



stable and uniform business in the years to come and will be one of your most valuable advertising assets.

The banquet was held in the ball room of the Bancroft, 150 entering at 7:00 p. m. Immediately on entering the banquet room business thoughts of the convention were thrown aside and the meeting of a merry crowd of good fellows followed. The banquet room was handsomely decorated for the occasion; the dinner was excellent and well served.

The representatives from Boston, lead by George Parry, started the singing. Joining in the music were Ed Wilson, Laforest Beals, Arthur O. Mahony, Frank H. Johnston, Charley Felton, C. A. Palmer and George Drake.

The evening's entertainment followed the dinner. The cabaret numbers were of excellent character.

#### Friday Morning's Session.

The second session of the convention was called to order Friday morning, February 27, at 10:30 with President Kelly in the chair. The president started the discussion on the subject of the manufacturer's position with the local dealer. The feeling is that the margin of profits on Portland cement to the dealer is insufficient to cause him to push the sale of Portland cement, and in order that such sale can be encouraged by the dealer the margin of profit by the manufacturer to the dealer should be increased to a reasonable profit. To illustrate the point President Kelly read the following paper, which was one of the principal subjects discussed at the convention of the National Builders' Supply Association recently held in Chicago.

#### President Kelly's Paper.

Among the twelve important subjects presented and discussed before the Annual Convention of the National Builders' Supply Association at Chicago last week two questions, intimately connected with each other, should be reported on at this meeting. I, therefore, take the liberty of injecting this paper into our program today, and ask for its subject your earnest consideration.

Edw. M. Hagar, president of the Universal Portland Cement Co., addressed the Chicago meeting on the subject of "Dealers' Profits." It was good to hear a prominent manufacturer of one of the principal materials handled by the dealer in builders' supplies turn his attention to a study of this question, even if presented from the point of view of the manufacturers' self interest.

We are all well acquainted with the extent of the work being done by the National Association of Cement Manufacturers to enlarge the demand for

Portland cement, both for old and new uses. The largest problem is not that of knowing all purposes for which cement can be used, but to educate and stimulate the millions of possible users to the end that they become buyers. This work should properly be conducted to even reach the individual householder and farmer, who, though in one and two-bag lots may seem small buyers, in the aggregate become tremendous consumers for a variety of uses.

Mr. Hagar's contention was that due to the small profits to dealers, cement had become to the retailer as sugar to the groceryman. For this reason the dealer had little or no interest in pushing Portland cement for more general use among his townspeople.

It is quite evident that due to small profits in most communities, the tens of thousands of dealers and their managers, salesmen and clerks are, therefore, taking a very small part in promoting the educational work of the manufacturers.

Yet this educational channel should be capable of larger use if only the inducement to the dealers of larger profits could be established. We are all human, and taking us, as a whole, we are not likely to waste time "talking up" a commodity and distributing literature designed to interest more consumers, unless we see a good profit and proper protection for a long pull.

Mr. Hagar very properly pointed out that the dealers, in most communities, were as responsible for the present conditions as were the manufacturers. That in many cases where the manufacturers had endeavored to hold a differential of 5 cents a barrel, the dealers themselves, through lack of coöperation, had cut the margin to 3 and 2 cents.

It is therefore natural to see why we, as dealers, can not logically ask for a larger differential and protection, until such time as the dealers throughout a large section are able to preserve the privileges already extended to them by a number of the manufacturers. It is not sufficient, from the manufacturers' point of view, to have a town here and a town there properly organized by the dealers. The manufacturers must handle their policies broadly and covering large sections. Their business is interstate, which makes it necessary to treat the problem from a national point of view.

We can not expect the manufacturers, who conduct a broad interest business in practically all cases, to have a dozen different policies for near-by cities and still maintain harmonious relations and clear understandings among themselves. It is an impractical condition to enforce among the producers.

The problem, therefore, leads directly to the ways and means of bringing a much larger proportion of the dealers into harmony on association policies not alone as affecting their own local condition, but in support of state or district movements, and in turn support to the national body of dealers.

We can not work out our problems there in New England by our district organization alone. We need the larger influence and broader educational work that can be conducted by a national body, if such a body can be developed to work out these larger questions with the manufacturers and if such national body of dealers will aid to scatter the association seed in our midst.

#### National Association Is Way Out.

This seems possible on the lines on which the National Builders' Supply Association is being remodeled, after several years of thorough study.

At the meeting in Chicago last week we held the largest and most enthusiastic convention in the history of the National.

The report on the plans of remodeling the National and establishing the principle of federation with the various State and district associations of dealers was most encouraging.

The States of Ohio and Indiana have already joined the National during the last few months and received the ratification of the membership of their State bodies.

The Association of New York State Dealers should ratify this general plan at their annual convention next month. The Executive Committee of our New England Association has fully considered the plan of federation at a conference with the officers of the National held several months ago and unanimously endorsed the general plans.

The plan of federation calls for financial support to the National of two dollars for each State or district member, and on this one point there is some question as to how the funds should be secured owing to our present dues only being sufficient to take care of our Association's expenses in New England.

Two dollars a member per annum is, however, such a small sum that we do not imagine that it will stand in the way of carrying out the strong recommendation of your Executive Committee.

With the other States and districts joining and with the vital principles at stake as shown by the sentiments in Mr. Hagar's paper, I feel quite sure that our New England members will not let this small financial consideration stand in the way. We must do our part and must not lag behind, but,

(Continued to page 45.)



DEALERS OF NEW ENGLAND AS THEY APPEARED AT THE ANNUAL CONVENTION OF THE NEW ENGLAND BUILDERS' SUPPLY ASSOCIATION, HELD AT WORCESTER, MASS., FEB. 26 AND 27. PICTURE TAKEN IN FRONT OF BANCROFT HOTEL, CONVENTION HEAD QUARTERS.



News About People and  
Things of Importance

## With You and Me

Comments of Interest  
to the Trade

### Dickinson to Go Abroad.

One of the aggressive business men connected with the cement industry is Theodore G. Dickinson. He is a native of Chicago, born and raised here, and still enjoys the growth of his big town. While he makes his residence at St. Joe, and the mills of the Marquette Cement Mfg. Co. are at La Salle, he spends several days each week in Chicago, where the concern has its general offices in the Marquette building.

The other well known members of the energetic and aggressive official family of the Marquette Cement Mfg. Co. are M. W. Duncan, chairman of the board of directors; William Dickinson, vice president, and Gold Williams, sales manager.

Mr. Dickinson for 25 years has been closely allied with the cement industry and has watched its

The excavating has been started for the new plant of the Urschel-Bates Valve Bag Co., at Toledo. It is hoped to have the building ready for occupancy soon.

L. M. Rice, of the Central Paint & Roofing Company, was in New Orleans during the Mardi Gras festivities, having made the trip to the Crescent City on business, and staying over to witness the carnival, as a spectacle which is worth seeing. The company has completed the move of its offices from the rear to the front of its building, and is now pushing spring business. Roofing is moving fairly well.

A. Reiche, formerly general manager of the Orenstein-Arthur Koppel Co., Koppel, Pa., has severed his connection with that concern and sailed for Germany a few weeks ago, to assume the position of

### Reeb Popular with Dealers.

M. A. Reeb, the Buffalo manufacturer and wholesaler of builders' supplies, is popular with dealers in his territory and is receiving his share of the orders for these supplies.

When the recent consolidation of builders' supplies houses in Buffalo was effected, it was at first supposed that Mr. Reeb was to retire from the builders' supply business, but as soon as these rumors reached the ears of Mr. Reeb, he very emphatically denied the fact and stated that it was only the retail end of his business which was effected. He is still engaged in the manufacturing and wholesaling of builders' supplies and the recent consolidation had absolutely nothing to do with these ends of Mr. Reeb's business.

The dealers who formerly bought supplies from Mr. Reeb declare that they are still with him, and without exception testify to his popularity with the trade.

The United Wire Tie Co. reports that 47 cement, lime and plaster mills are now using their wire ties exclusively.

W. W. Inches, of the Thomas Moulding Brick Co., of Chicago, reports the fire brick business is especially good at this time and that prospects indicate that 1914 will be a banner year.

Reports from the district sales manager, L. Alden Smith, of the Savannah office of the Lehigh Portland Cement Co., state that the new office is now definitely settled and the machinery of business is running smoothly and successfully.

Milton Williams, sales manager of the Williams Patent Crusher & Pulverizer Co., Chicago, spent some time this past week in the east, where the Editor of ROCK PRODUCTS AND BUILDING MATERIALS met him. He reports business as improving.

Herbert E. Dorey, who has been superintendent of the United States Gypsum Co.'s plant at Great Falls, Mont., left that place for Fort Dodge, Ia., a few days ago and has been succeeded by H. W. Reel, of Columbus, Ohio, who has had considerable experience in this line of work.

The first of February, R. S. Ward, of the Beaver Board Co., Buffalo, N. Y., sailed for South Africa. The Beaver Board Co. has representatives in South America, Australia and Central America, a strong branch office in London and distributing points in all the chief markets and ports. The demand in South Africa has made the sending of this representative necessary. The new representative will go, not only to establish new dealers, but to work with dealers who are already handling Beaver Board.

The new plant of the Canadian Cement Co. at Medicine Hat is going to be a good one. It will be gas fired and modern in every particular. The gas is piped some 400 miles, but it is economical fuel. To show how careless they are of it, it is cheaper to let the gaslight burn all day long in the town of Medicine Hat than to employ some one to turn it out. They are a bit careless about raw materials in this new country, but we hope the cement people will have fuel as long as they wish it.



THEODORE G. DICKINSON, OF THE MARQUETTE CEMENT MANUFACTURING CO.

growth with enthusiasm, owing to being actively in the business. He, however, now finds time to take a trip abroad and his next sailing will be April 8th. This is our excuse for taking advantage of him and introducing him to some of the ROCK PRODUCTS and BUILDING MATERIALS readers abroad, who will read the issue of March 7th before he arrives. He will be accompanied on his trip by Mrs. Dickinson and their daughter, but his son will remain at home.

Mr. Dickinson's activities have not been so aggressive since the rebuilding of the plant in 1907 and the adding to it, making it competent to grind up and put into finished cement 7,000 barrels each day. He is a student of the business, but finds time for motoring. He lives at the Union League Club when in town and enjoys the South Shore Country Club when the day's work is done.

The other members of the official family of the Marquette Cement Mfg. Co. are M. W. Duncan, chairman of the board of directors; William Dickinson, vice president, and Gold Williams, sales manager.

managing director of a large concern manufacturing locomobiles and agricultural machinery. He will be succeeded by E. Joseph, who has been connected with the Orenstein-Arthur Koppel Co. for a great many years.

Guy Warren, of Warren Brothers, represented his firm at the Chicago Cement Show. Business has been somewhat quiet with the firm, as with most of the trade in Louisville, roofing being about the most active line. Several carloads of this material were handled early in February, but the severe weather of the latter half of the month, with snow and rain, put an end to this business. H. C. Warren covered the principal cities of the state, including Lexington, Frankfort, Henderson, Owensboro and others, as well as Evansville, Ind., during the month, on his rounds in search of business, and located a number of live prospects which should develop when the season opens up. Bay State brick are handled by Warren Brothers, and indications for sales of these are excellent.

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H. H. Macdonald, assistant secretary of the National Paving Brick Manufacturers' Association, was in Chicago recently and reports that road improvement questions are being discussed in practically every community of importance.



"DOINGS IN WINNIPEG"—ALSIP BUILDING MATERIAL ACTIVITIES CARTOONED.



# Prosperity—and the Building Material Dealer

Business Men Assured They Will Be Able to Easily Adjust Themselves to New Financial Conditions  
—Parable of Five Cement Dealers of Hackensack.

By CHARLES WEILER

[At the Fifteenth Annual Convention of the National Builders' Supply Association Held at Chicago, February 17 and 18, Mr. Weiler read the following paper, much to the satisfaction and enjoyment of the members present.—EDITOR.]

The subject assigned to me for my little gossip with you is "Prosperity," and perhaps the reason may be that we are all hunting for prosperity and are willing to listen, for a while, to anyone who thinks he has found its trail in the road we are traveling.

I recall that in February, 1907, during an address before our association at Columbus, I made the rash prediction that the country was rapidly approaching a disastrous panic. In September of that year the panic swept down upon us with a rush that dazed us all.

Again, in February of 1908, at our convention in Chicago, when the black cloud of that short and sharp squall showed signs of clearing, I predicted that the worst was over and that we were already on the up-grade, and you all remember the marvelous rebound felt in all lines of business immediately thereafter, and the era of great expansion which then followed.

Now, having hit the bull's-eye twice in succession, I feel that I had better retire from the "prediction" business and sidestep any further attempts to pose as a business prophet, and, to be entirely frank with you, I haven't the least idea what fate may have in store for us this year, and whether times are going to be good, bad or indifferent.

These are great days for quack doctors to be called in to prescribe for all our real or imaginary political ills, and after swallowing the dose of a reduced tariff without having felt any change, we are now facing a different pill in the shape of a new currency law that few understand and even those few disagree widely as to its action.

## Business to Run Smoothly.

Of two leading bankers in this city, one says that it is going to be a howling success, while the other predicts that it will be a dismal failure, or words to that effect. "Who shall decide when doctors disagree?"

The probability is that both are wrong, and that we will be able to adjust ourselves to the new financial conditions without much of any disturbance.

Certainly, somebody is going to be as disappointed as the little girl who came home late to dinner and said: "Now, mamma, please don't scold me for being late, for I have just had an awful disappointment! I was downtown when I saw a horse fall in the street, and a crowd gathered around, and someone called, 'Send for the horse doctor'; so I waited, because I wanted to see the horse doctor, and after I waited a long time, finally the horse doctor came, and oh! mamma! I never was so disappointed, for that horse doctor was only a man!"

When the currency bill gets into full operation none of us need flatter ourselves that we are going to grab twenty dollar gold pieces out of the air like a vaudeville magician, nor are we in any great danger of being obliged to get all our meals at the public soup houses.

The road to prosperity runs through Economy Alley, down Sobriety Street and along Industry Avenue, and leads straight to the suburb of Retired Capitalists; and the man that follows the blind guide who claims he has found a short cut to wealth, will generally run into a stone wall at the end of the lane.

A mail-order genius once advertised that for a small fee he would send directions of a "sure way

to get rich!" and to the suckers who responded, he wrote one line:

"Work like the devil, and don't spend a cent," which was unnecessarily crude, but undeniably certain!

However, no one wants prosperity at that price, for it would take all the optimism out of life, and if I were asked what is the most valuable asset in the world I think I would answer "Optimism." Assuredly:

"Tis easy enough to be pleasant.

When life goes by with a song,

But the man worth while,

Is the man who can smile,

When everything goes dead wrong."

"You can't keep a good man down," as Jonah said to the whale, when he gaily skipped out of the



CHARLES WEILER, WESTERN LIME AND CEMENT CO., MILWAUKEE, WIS.

interior flat, and the right man on the road to prosperity never feels it when he stubs his toe, but plunges along with his never-fading smile and does not stop to apply quack nostrums to little sores.

## New "Creed" Preaches Optimism.

Recently, on a blue, dismal day, there came to my desk from the Chase National Bank of New York, a beautifully printed wall-card headed "A Patriotic Creed," and when I read it I felt the glow of a fresh optimism which irradiated all the day, and the petty troubles of the hour dissolved like a morning mist.

I think I recognized in the "Creed" the mastermind of my old-time boyhood friend down in Central New York—Henry W. Cannon, former Comptroller of the Currency under the Arthur administration, and later president of the Chase National Bank and the New York Clearing House.

I wish every tired business man could have on his desk at home a copy of the "Patriotic Creed," which follows:

"We believe in our country—the United States of America.

"We believe in her constitution, her institutions, and the principles for which she stands!

"We believe in her future—the past is secure!

"We believe in her vast resources, her great possibilities—yes, more, her wonderful certainties!

"We believe that what are termed 'times of business depression' are but periods of preparation for greater and more pronounced commercial successes!

"We believe in the American people, their genius, their brain and their brawn.

"We believe in their honesty, their integrity, their dependability.

"We believe that nothing can stand in the way of their commercial advancement and prosperity."

Brothers of the National Builders' Supply Association, let us all keep looking forward! We may not see the growth we want from day to day, any more than we can see the hour hand of a clock move, yet we know it is moving all the time, and so we know that the tide of business is always moving and growing.

During my business life time I have seen the population of the United States double! and I am a temperate man, too!

## Population to Double in Lifetime.

During the lifetime of some one of you present, you will see the population of the United States double again. That is a most compelling thought, when you stop to consider it for a moment. A hundred million more people wanting homes, food, labor, livelihood, all the multifarious and complex needs of modern life! The human mind can only be stunned and staggered by all the amazing expansion of business that is unrolling before us! Let that thought sink into, and become absorbed by, your consciousness, and you cannot help being the wildest kind of an optimist.

The business world loves the cheerful man as much as it hates the chronic grouch, and it costs so little to be happy that merely wearing a comfortable grin on one's mug generally induces a comfortable feeling, drives out many a blue devil, attracts friendly recognition, paves the way to numerous successful deals, and is a good, all-around, free prescription well worth taking.

## Weiler's Theory—and How It Failed.

Some years ago I was walking one morning down the two-mile stretch between my home and office with my neighbor and friend, Frank Beals, a prosperous, busy shoe manufacturer, and Beals was bitterly complaining of his hard luck in being called on a jury and that he was continually being drawn for this service. He was groaning dismally over his hard luck, whereupon some perverse imp prompted me to say, "You certainly seem to be in hard luck, Frank, and I sympathize with you all the more because I never was called on a jury in my life!" And Beals stopped short and cried, "Well! how do you account for that?" and I replied, "Well, I have a theory about it which may not be right, but it seems to me that it fits the case. My theory is that names are taken from a poll list and they commence with the A's and long before they get half way down the list they have all the names they need and all the W's and X's and Z's escape. Of course, that's only my theory, and you can take it for what its worth." Beals replied: "Well, I am going to find out the names of my fellow sufferers and see if you are right, and I'll raise sheol about it if you are!" And I walked comfortably to my desk and soon for-



got all about it. Along towards noon a big Irish cop walked in upon me and said, "Air yez Mither Chairles Woiler?" and I said, "I am—that!" and then he handed me a little slip of paper informing me that I had been drawn on a jury! And then I gasped and spluttered, "Why, see here, Casey, there must be something wrong about this! Why, I never served on a jury in my life!" And Casey responded, with a broad grin, "Yis, the jury commissioners heard all about your theory at the City Hahl this maarning, and Oi'm a-thinkin' yez will be drawn on a jury now ivery year to make up for losht time!"

The evening paper came out with this little story, about as I have told it to you, with staring headlines reading: "Weiler's Theory—And How It Didn't Work."

Aside from the ordinary, common-sense need of keeping your own counsel about your own affairs, there is nothing in the situation today that need prevent any and all of us joining the Boosters' Club, for it still remains a certainty that the present huge supply of all kinds of building materials is going to be absorbed, and, before we realize it, the supply will again have to be expanded for the colossal and growing needs of America.

It is not too much to say that there is well-grounded hope for a happy new year for every worthy business man. The more all of us think and feel that way the surer we shall be to have our expectations realized.

As sunshine is the best natural disinfectant, so optimism—the sunshine of the spirit—is the best antiseptic against the "yellow streak" of self-induced misgiving about the future that militates most against its success.

#### People Ought to Feel Sanguine.

The government report, published in January, showed that our departed friend—1913—was the banner year in crop production value in the United States. With that enormous increment of newly created basic wealth poured into its lap, the country ought to be prosperous.

And it ought to feel sanguine. That is what we need!

Hypochondria in the individual is a morbid state of mind, and a strong, hearty, full-fed man, moping around over imaginary ills is a pulling spectacle who does not invite respect. So is a nation in a like frame of mind, that, with a lapful of blessings, cultivates a state of doleful dumps over bleak possibilities that are utter improbabilities.

Rightly read, the national barometer is rising, and should soon point to continued "Fair."

The propensity to both bewail our misfortunes and yet to "hang on," reminds me of the conundrum of a small member of my family, who fired this bewildering inquiry at me: "Uncle Charlie, what is it that you have got, that you don't want, that you never did want, that you would be glad if you had never had it, and yet you wouldn't sell it for a million dollars?" It was my bald head!

I have rather hastily outlined the prospects of prosperity in the general situation, but I know that what interests you, in a much greater degree, is your own prosperity first, for as Voltaire somewhat cynically remarked "The most interesting subject in the world to me is 'Me,' and the most interesting subject in the world to you is 'You.'" So I feel that if I could point out a way by which you and I and all of us here could honestly and fairly earn a larger measure of prosperity than we now have, we would be very much more interested in it than in tariff-bills and currency-measures and crank politics. And so, I think you will agree with me that the hole in the skimmer through which our profits ceaselessly dribble away, and which keeps us working like the devil and not saving a cent, is competition—wild, crazy, cut-throat competition; and the missing plug to stop that hole is co-operation—fair, legal, honorable co-operation!

Perhaps that is something of a pipe-dream, yet instances are not uncommon where ordinary com-

mon-decency and common-sense have paid good returns in comfort, to say nothing of dollars.

#### "Trade Conditions in Hackensack."

I recently dug out of a pile of similar matters, an old article written about 1906, descriptive of how five mythical dealers in Cement, in a mythical town, had fought each other to a standstill, until they took a tumble to themselves and got acquainted with each other, and as novelists say "lived happily ever after." Now, if you will bear with me a few minutes more, I would like to take you through this hurriedly, and leave it to your reflections, promising that I will have to leave out a part of it, which was obviously a matter of private and not public discussion. However, enough is left of this mutilated and whimsical sketch to give us subject for thought as to whether it is good policy to fight your competitor till you kill off each other, or whether it would not pay better to shake hands and be friends. This little skit has the rather grim title Trade Conditions in Hackensack."

Hackensack, New Jersey, is bounded on the east by the Atlantic Ocean and on the west by the United States.

Hackensack is, so far as I know anything to the contrary, a perfectly good town. I have never heard anything against it; I have never heard anything for it. In fact, I never heard of it before, and its trade conditions don't interest me in the least. For the Hackensack I am exploiting is not in New Jersey. You may find it hard to locate it on the map. I can't locate it myself, and I'll be blowed if I know where it is; but this I do know, and know it mighty well; "the men and their trade conditions in the cement trade and every other trade, and the ideas and prejudices, and the plots and the counter-plots, and the ups-and-downs of the business life of Hackensack are just as alive, and as real, and as easily managed, and as easily mismanaged, as obtain anywhere between Long Island and Los Angeles."

I was going down Main street in Hackensack a couple of years ago, and reaching the Hibernian National Bank 'I bethought me' of a coming cup competition at our golf club, and went in to talk it over with that enthusiastic fozzler, the president of the Hibernian National Bank. I found the president comfortably chatting with the cashier, and had a few minutes satisfactory gossip with them, which was finally cut short by Jabez Smith walking up to the little railed enclosure with his breezy, hearty smile and handshake.

Jabez is the oldest and largest cement dealer in Hackensack, an upright man and model citizen, and one of the most popular men of the city. So we were little prepared for the angry manner in which he blurted at us:

#### Objects to Competitor Joining Club.

"Say, what do you fellows mean by crowding Jim Brown into our golf club? Ain't we got enough crummy members without running in a piffing pup like Jim Brown? Who stuck his name upon the bulletin board for membership anyway?"

"None of us did," said the president, "and what Jim Brown do you mean, and what's the matter with him anyway?"

"What's the matter with him!" roared Smith, "why I told you what's the matter with him. He's a piffing pup; that's what he is, and I'm the man who knows him, and you betcher life I'm going to cast one of the three black balls necessary to keep him out of a gentleman's club, and you fellows want to do your share too, if you expect me to stay in."

"Do you mean Jim Brown, the cement dealer over on Kosciusko street?" asked the banker.

"Sure thing," said Jabez Smith, "ain't it just like the piffing pup to jam his way into our club! Why that fellow don't seem to know that the devil has got a mortgage on his soul, and he is fat-headed enough to think he can get past St. Peter when his time comes! Say, that fellow will lie and cheat and steal and swindle, and he would commit every crime

in the calendar if he thought he would escape detection. He has been doing a losing business for years and he's on the ragged edge. Take the tip from me old man," said Smith to the president, "and don't you ever lend him a cent without kissing it good-bye. I'll tell you just the kind of yellow dog he is. You fellows all know Jorkins the contractor, don't you, and you know what a square, straight fellow he is. He's my biggest and best customer, and he'd never buy his cement of anybody else unless I sometimes tell him to, for good reasons. You see Jorkins goes around and gets the figures of Brown and Nelson and the others, and comes and tells me what they are, and sometimes I take the sale, and sometimes I don't. Well, never mind why; it just depends. Well I just met Jorkins on the street, and I says to him. 'How about that 4,000 barrels of cement that you are going to use on the new Jump-up & Step-and-Fetchit factory,' and Jorkins says to me:

#### Brown Willing to Cut Price.

"Well, you see, Jabe, it's just like this. They've all got the same price—a dollar a barrel—except Jim Brown, and he said he would make it 95 cents, just to get it away from you." 'Holy smoke,' says I, 'a dollar a barrel, and 95 cents from Jim Brown! Well, what do you think of that! There ain't one of the whole condemned bunch but what loses money on a dollar price! Why, my cement costs me over a dollar, and I buy for cash, and the rest of these cusses have hard work to get any sucker to sell them at any price, for they're all just about broke.'"

"Well, you see how it is, Jabez," said Jorkins, 'I want to buy of you, and I always give you the first and last show, but I guess I've got to buy of Jim Brown this time, for it's plain you can't afford to make his price, and I don't ask you to lose any money, but you can see when I am offered a 95-cent price, I couldn't afford to buy of my own brother if he was in the cement business, at any higher price, now could I, Jabez, honest? Of course you can have it at 95 cents if you want it, but if I was in your place, I'd let Brown have it and let him lose the money.'"

"Not on your life, Jorkins," says I, 'I ain't going to let that piffing pup go around giving me the big laugh at getting my solid trade away from me. I've got some money ahead, and I can afford to give Brown a whirl that will make him dance. Of course I'll take the job at 95 cents, and I'll get even with him some time. He won't know what hit him when I get through with him.'"

"That's tough, Smith," said I, "I'm glad I ain't in the cement business."

"Too bad," said the cashier.

"Too bad; too bad," said the president, as Smith stalked stormily out, "I sympathize with you, Smith, by Jove, I sympathize with you!"

After he had gone, I said to the president, "Say, I know Jim Brown a little, and I don't think he's a half-bad fellow, is he?"

#### Jim Brown Puts in Appearance.

"Well, I should say not," said the president, "why, Jim Brown is the salt of the earth; a straighter, squarer, whiter fellow never lived. I'd let him hold my pocket-book over night, and know he would hand it back tomorrow without ever looking to see what I had in it. Why, here he comes now! How are you, Jim? I see you're up for membership in the Rowdew Golf Club, and am glad that you are coming out and going to be one of us."

"Well," said Jim, with his sunny, good-natured laugh, "don't you think I am going to get my fatal three black-balls?"

"Nonsense," said the president, "of course you have made up your mind you will get one, but that's all you'll get, and you can afford to laugh at that."

"Well, I don't know," said Jim, "That's the one reason why I have hesitated so long about sending in my application. You are all gentle-

men, and all friends of mine in that club, except one man, but that exception is like a toad jumping into your glass of beer—somehow you don't hanker much for the beer afterwards."

"Oh! well now, Jim," said the president, "don't mind Smith. He's one of our charter members, and what's the matter with him anyway?"

"What's the matter with him," shouted Brown, angrily. "I'll tell you what's the matter with him, and I ought to know, for there ain't a man in Hackensack that knows him as well as I do. He's just a plain piffling pup, that's what he is! Say, that fellow will lie and cheat and steal and swindle, and he'd commit every crime in the calendar, if he thought it wouldn't leak out. He's been doing a losing business for years, and if he asks you to lend him any money, look out for him. That's all I've got to say! I'll tell you just the kind of yellow dog he is. You fellows all know Jorkins the big contractor, don't you, and you all know that a straighter, squarer, and more truthful fellow never lived; don't you, now?"

"Sure thing," we all murmured.

"Well," said Brown, "Jorkins came in yesterday and said he would like to give me the contract for 4,000 barrels of cement on the new Jump-up & Step-and-Fetchit factory buildings, but that he found that Nelson and that German dealer—what's his name—Rauschenberger, and Jabe Smith all seemed to have it in for me, and were determined to take it away from me, even if they lost money."

#### Selling Below Cost Price.

"Now, you fellows know," continued Brown, "that Jorkins is my biggest and best customer, and that nobody can get him away from me without some dirty skullduggery. Well, Jorkins did floor me when he told me that two of them made him a price of a straight dollar, and that the other one, Jabe Smith, said that he would give him a special confidential price of 95 cents. 'Great Caesar, Jorkins,' said I, 'there can't any of us make you any such price! Why cement costs me more than a dollar on cars here, and I'm the only dealer in town who pays cash and can buy on the bottom. These other cheap skates haven't any credit, and have to depend on some poor sucker of a manufacturer to supply them, and they can't furnish you at any such figure, unless they expect to swindle the mill, and then you can look out for liens and garnishments.'"

"Well," said Jorkins, "I don't know anything about that, and I'd make any of them but you give me a bond to protect myself, but as I told you, Smith knows I am partial to you, and so he's got it in for you, and I can see he will lose money just to make you envious, and I don't ask you to take 95 cents, Jim, unless you want to, but you can see I couldn't afford to pay my own brother, if he was in the cement business, a dollar or more, when Smith is just hounding me to buy of him at 95 cents."

"Well, I just thought it over, and I says to Jorkins, 'All right, buy this time of Smith, but when that Snake River Dam job of 10,000 barrels comes up, you just keep me posted, and I'll make Smith wish he'd never played any such low-down trick on me.'"

"Well, fellows, I must be going, but you can see why I am not specially anxious to belong to any club that has Jabe Smith in it."

And the president said, "Too bad! too bad! I sympathize with you, Jim, by Jove, I sympathize with you!"

Then the president turned to me and said, "Now wouldn't that jar you. You heard both these fellows talk, and you'd think each was as low down as they make 'em, while the plain fact is, that both are as sound as a dollar in every respect, and I'd bet my last cent on either of them. Of course there's nothing at the bottom of all this but the contractor Jorkins, and singularly enough, you take Jorkins away from his business

and he's all right too. His word is as good as gold on any other subject, but when he comes to cement, he just goes from one cage to another and pokes up the animals and gets them to chewing each other."

"Do you think he has been to the others?" said I to the president.

#### Swede and German Refuse to Cut Prices.

"Why, of course," he replied, "I heard all about this from the others when they came into the bank yesterday. Nelson told me that Jorkins had called on him, and told him he was willing to give him this contract, to get out of the clutches of Brown and Smith, and show them they didn't own him, and if Nelson would make the same price he could have the preference, and Nelson was highly flattered, and said that he would make as low a price as anybody, for he was the only dealer in town who paid cash for his cement, and had the lowest expenses, but when Jorkins told him the price was 95 cents, Nelson said:

"Aye gass not, Maister Yorkins, Aye bane jurty big fule, but aye baint so big dam fule like dem fallers. Yu give dem de yob. Aye don wan' it."

As for Rauschenberger, that honest Dutchman said to Jorkins, when he told him just the same yarn he did Nelson:

"Gott in Himmel, Miester Chorkins, I don't can afford no sooch a brice. Mine cement costs me more dan ein tollar, und I is der only one here dot bays gash, and so I gets him der sheepest. You gifs der odder fellers de gontract and dells 'em for me dey gan all go der h——!"

"Well," said I to the president, "I suppose you said it was too bad, and you sympathized with them."

"Of course," said the president, "why?"

"Oh, I just thought," I replied, "that you might have given them a hint about Jorkins and let it go at that."

"You talk as if you had just been weaned," said the president. "Now, if you saw a man and his wife fighting on the street, what would you do?"

"Run like the devil in the opposite direction," said I.

"Right you are," said the banker, "and I am just running away from fights all the time. Every day I sit here and listen to long strings of just this kind of talk. Druggists, shoemakers, grocers, barbers, even ministers, go over the same old story with me every day, every yarn just like the rest, yet each man thinks he is telling me the newest and most exciting thing I ever heard. Oh! it's just awful to sit here and listen to this clack all the time."

"Too bad; too bad," I murmured, "I sympathize with you, by Jove, I sympathize with you! But say, you must be thankful there is one branch of business that is entirely free from this."

"What is it?" asked the president.

"Why, banking," I replied.

"What!" yelled the president, "you are getting weak-minded! Why banking is the worst of the lot! You take the president of the Nineteenth National Bank, around on Arapahoe street. Why that fellow is a regular piffling pup! He will lie, steal and cheat and swindle; and would commit ——"

"Excuse me," said I. "I can't stay any longer this morning. I'll come around and listen to the rest of that soon."

#### Hackensack's Most Important Man.

Walking down the street later, and thinking over these cement troubles, I met Mr. John Oaker, on account of his name, and because he is the liveliest card in the pack, popularly known as "Joker," a man beloved of everybody. He is an insurance agent, with plenty of time at his disposal, and "The Mutual Friend" of Hackensack. Keep your eye on Joker. He is the most important man in

this little sketch. Straight, fair, hopeful, and helpful, the world is better off for such men as Joker.

"Hello, Joker," said I, "I was just thinking of you, and I want to consult with you. Come in here and surround a couple of glasses, and I'll tell you something. You know Smith, and Brown, and Tom Snow, and Nelson, and old man Rauschenberger, don't you?"

"All five cement men," said Joker, "sure thing I know 'em, and know lots of good things about 'em too, and not one bad thing. What are you driving at?"

And then I gently, but firmly, led him into Gus's place, and told him all the foregoing yarn, just as I have told it to you, at which Joker laughed so uproariously and pounded the table so hard, that Gus had to fill up the glasses again.

"Now, Joker," I said, "You agree something ought to be done for this bunch. I see you do, and, Joker, you're just the man to do it. I want you to get these fellows together and stop their fighting, and its such a little, simple, easy thing to do, that I am ashamed of you, Joker, not to have done it long ago."

"Right you are," said Joker, "I see what you want. It's your idea to have all these fellows meet and form one single, central company to do all the cement business of Hackensack, and all five own the company. That's the ticket, ain't it?" and Joker smiled fondly at me.

"Joker," said I, "I congratulate you, and admire your powerful intellect. I always said you could see anything that was a mile high, provided you were pretty close to it, and it was bright daylight. But, Joker, that wasn't what I had rattling around in this empty skull of mine at all, for your idea overlooks one little flaw. There are about sixty reasons why it won't work. The first is, that it's against the law, so we needn't mind the other fifty-nine varieties. Now don't tell me that such a law is silly, and no-one minds it, for if the Hackensack Consolidated Cement Co. should get to work, what would be the result? Why, everybody would say that there is now only one place to buy cement in Hackensack, and it's a good time to start some more and advertise 'Not in any Trust.'"

"Oh! yes, I know that there would be the original five fellows in the business just the same, each making a living out of it, just as before, only handling it cheaper and better, and so being able to furnish cement cheaper to Jorkins and the rest. And I know just as well as you or any other man outside of a lunatic asylum, that your idea is the simple and natural way to sell anything, best for the buyer as well as the seller, but—the law don't agree with you. It says the public must have 'open competition' even if the public has to support a lot of lazy and worthless competitors, and pay like sixty for everything it buys, so if you should start the Hackensack Consolidated Cement Co., within a week there would be five new concerns start in competition, greatly to the delight of Jorkins and the rest. Now, if I have made the objection plain to you, I will tell you what I want you to do. First, last, and all the time, keep your fly-trap shut. Don't tell me or anyone else a solitary thing about your plans, or what you are doing. Talk as freely as you please to Smith about Smith's business, and to Brown about Brown's business, but never say a word to the other about the other's business. Now, Joker, try to be all ears, like a mule, and listen to this:"

#### Joker Makes Friendly Calls.

At this point we will imagine we are all at a play, and the curtain has dropped on the first act leaving the author and John Oaker conferring together upon private affairs, and the audience guessing at just what they are discussing.

"Now, Joker," said I, "having listened to all this with your usual long-eared patience, what do



you say to going over to Jabez Smith this afternoon, and see what he says?"

And Joker looked at one fly-speck on the wall until I thought he was listening for an earthquake. Yet I knew that active and alert mind was jumping from point to point, with all the grace and ease of a trained kangaroo. And so I ordered another glassful, and he woke up and said to me, "You say you don't want to hear a word from me about all this any time?"

"Never," said I, "I wash my hands of it right here and now."

"Well, so long," said Joker, "I am going to make five friendly calls this afternoon, and I must be going."

#### Competitors on the Golf Links.

Three months afterwards I was sitting on the porch of the Rowdew Golf Club, when I heard a couple of familiar voices coming around the corner, and I looked lazily around and saw Jabez Smith and Jim Brown walking towards the first tee, with broad smiles and much laughter as they chaffed each other, when a loud voice rang out, "Hold on, you fellows, I'm hurrying up to join you. Let's make it a threesome," and the two pals shouted, "You're on—come along—we've been looking for you," and Tom Snow trotted up and sang out, "Say! what do you suppose that confounded liar Jorkins told me this morning about your prices on that Snake River Dam job that Rauschenberger is going to handle. He said that both of you made him a price of—" but by this time they had all passed out of my hearing, and alas! I shall never know what Jorkins said. All I heard then, was loud bursts of laughter floating back to me.

A heavy form dropped into the next chair, and, turning, I saw my fat, jolly friend Snodgrass, who keeps the department store in City Hall Square. He was looking at the three pals walking away, with an odd expression, as he said, "Say, now honest, wouldn't that jar your false teeth loose? Look at them cement chaps. Good fellows, but sharp competitors and working for business against each other like beavers. I know, because all three are pestering the life out of me to furnish the cement for my new addition, but whichever one gets it, the others forget all about it, and they come out here and play golf together, and act just as if they were born triplets. They are all just like that. Everybody gets along with their competitors, except the darn fool dry goods men!"

"Why," said I innocently, "What's the matter with the dry goods men?"

"What's the matter with the dry goods men!" shouted Snodgrass in a rage. Why, there are 58 dry goods men in Hackensack, and the whole 57 are just a pack of pitiful piffing pups. Every one of them will lie and steal and cheat and swindle and commit every crime in the calendar, if they thought they would escape detection. That's the kind of competitors I have got to get along with. I don't have any such decent men to compete with as those cement fellows. Not on your life. My competitors are just the rag, tag, and bobtail of humanity. Just a pack of piffing pups—that's what they are."

And I murmured, "Too bad; too bad! I sympathize with you, Snodgrass, by Jove, I sympathize with you."

Here ended the parable of the five cement dealers of Hackensack.

#### ROCK PRODUCTS' STERLING METHODS.

East St. Louis, Ill., Feb. 14, 1914.

Editor ROCK PRODUCTS AND BUILDING MATERIALS—

We trust that you have benefited the already sterling merits of your ROCK PRODUCTS by incorporating DEALERS' BUILDING MATERIAL RECORD in conjunction therewith.

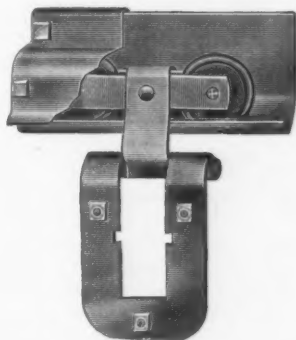
AMERICAN PULVERIZER CO.,  
Geo. C. Videtto, Sec'y.

## Builders' Hardware

### Specialties Are Profitable.

It is a generally admitted and recognized fact that the specialty department of any building material dealer can be made to be a very profitable proposition. Under this name of "specialties" are classed such articles as metal lath, wall ties, corner bead, steel sash and other supplies of this type.

But in addition to these so-called specialties there is another list of supplies which has been found to be of value to many dealers, particularly those located in smaller communities. These are classed as builders' hardware, and include such



DOOR HANGERS FIND READY SALE.

small articles as window locks, door knobs, etc., but more properly articles such as door hangers, coal chutes, storm sash hanger, hinges, door checks and similar supplies.

In the smaller towns and cities, where the general stores do carry hardware, it is usually of an inferior quality and unsatisfactory to the purchaser. Building material dealers have come to realize therefore that some hardware is almost a necessity as a part of their stock. There is no reason why every building material dealer should not engage in the sale of builders' hardware. While the sale of cement, lime and other products is being made, the additional profit possible through the sale of necessary hardware should not be overlooked.

Study the sale of coal chutes, as an example. The building material dealer should be able to handle coal chutes very easily. He is usually on the job and has an opportunity to suggest "coal chutes" before the building is completed, rather than afterward, as is the case of the regular hardware dealer. A coal chute can be installed in any building, old or new, and takes the place of the ordinary basement window. It is a great improvement and worth many times the cost of the work caused by its installation. While its use is on the increase and builders are recognizing its practicability, dealers should secure agencies from coal chute manufacturers and secure the benefit of early advertising. By inaugurating the coal chute business in your city, you will become known as the coal chute man—and, consequently, orders will be turned your way.

Storm sash and window screen hangers and fasteners are articles which find a ready sale among modern builders. With the aid of the hangers, the sash can be hung from the inside without tools. They hold the sash firmly, permitting no rattling; and the fasteners allow the window to be pushed out for cleaning and for ventilating. In the summer, screens furnished with the same eyes as the storm sash can be hung on the same hooks.

Door hangers are another valuable addition to the supply stock. Today, when garages and barns

are being built by the hundreds, including portable buildings of this type, the door hanger becomes an easily sold commodity.

### Quality in Wall Ties.

In the building line, as well as other lines of business, price is the one enemy to be fought to the lowest point. This is done in some cases to a benefit, while in others a saving in the cost of an article is overbalanced many times by defective results by the use of same. It is a proven fact that irrespective to what use an article is put it must come up to the standard of a certain test for the purpose required and when an article can not come up to this proven standard, it is worthless, no matter how cheap it is sold.

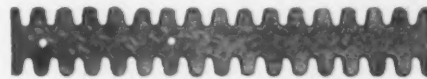
A brick wall, for instance, must be composed of material and workmanship, so as to be perfect and permanent. Should a manufacturer of brick acquire the reputation of supplying defective brick in any respect, his business would have no chance of success. The same with the manufacturer and dealer of the cement and sand that go to make up a wall.

These articles are the large items and quality and price are thoroughly analyzed before placing orders for same. But how often are the merits of an article considered that plays a prominent part in the construction but a small part as to outlay of money. We know a chain is as strong as its weakest link, also a wall is as strong as its weakest part, but how often in ordering wall ties do builders consider specifying one of proven quality?

It seems the wall tie proposition of today has resolved itself down to how much scrap can be utilized as wall ties. Manufacturers that formerly gave their scrap away, now turn it into a wall tie and throw it on the market at any old price.

As a result, the more critical buyers are beginning to investigate this condition and specify those ties with a reputation of fulfilling the purpose for which they were made, with a guarantee to be uniform in thickness and form.

The Allegheny Steel Band Co., Northside, Pittsburgh, Pa., in marketing the "Whalebone" wall tie, has held quality first in every respect and serv-



"WHALEBONE" WALL TIES.

ing the trade with a reliable article as cheap as an interior scrap wall tie. They are made from heavy galvanized sheets and when the builder or contractor specifies "Whalebone," he is assured of a tie of equal weight throughout the box.

#### FOR UNIFORM CONTRACT.

A bill has been introduced in the Kentucky Legislature by Representative Will Duffy, of Louisville, who is the son of a well-known master plumber, which is intended to eliminate the advantage given to architects and designing engineers by the provision generally contained in contracts giving them arbitrary power to settle disputes. Much interest in the bill in Louisville, where the agitation for uniform contracts, plans and specifications, and for a more equitable arrangement than that indicated, was responsible for the movement which is now under way to secure a general adoption of uniform provisions in these matters.



# BUILDING PLANS

## Inexpensive Small Farmhouse For Tenant or Owner

Government Aims to Aid Rural Residents to Improve Living Conditions by Furnishing Plans for Practical Homes.

With a view to enable farmers to construct inexpensive but better homes than are usually seen in our rural sections, the United States Department of Agriculture has designed plans for the neat little dwelling illustrated herewith. The basis of the inquiry behind the department's action is the belief that the farmhouse is the most important building on the farm and money judiciously expended in its planning and construction is well invested. The objects sought in the plans are to provide structures reasonable in cost and of good material, and so arranged as to give the maximum in health, comfort and happiness to the family, and added convenience to the housewife in her domestic operations.

The plans made public are for the construction of an inexpensive farm tenant house, although the house as planned contains many valuable suggestions for owners with small families. The provision of proper tenant houses on farms, it is believed, is of increasing importance to farm management because of the increasing number of rented farms, the growing demand of tenants for modern houses, and a better understanding of the influences of the home upon farm labor and field efficiency. The census report of 1910 shows an increase during the previous ten years of more than 324,000 rented farms. Many of the new tenants moved into good houses vacated by the owners, but many others are living in buildings wholly unsuited to their needs. The cost of these houses commonly is inconsistent with the value of the farms, and the lack of improvements in them too often is in striking contrast with the outbuildings, farming machinery and field equipment.

The important principles of planning, applicable to all buildings, which effect saving in construction and in the performance of indoor work have been carefully considered in these plans. Endeavor has been made to provide good lines and pleasing proportions which are essentials to genuine beauty in all structures, and are the production of skillful designing rather than of additional material and labor.

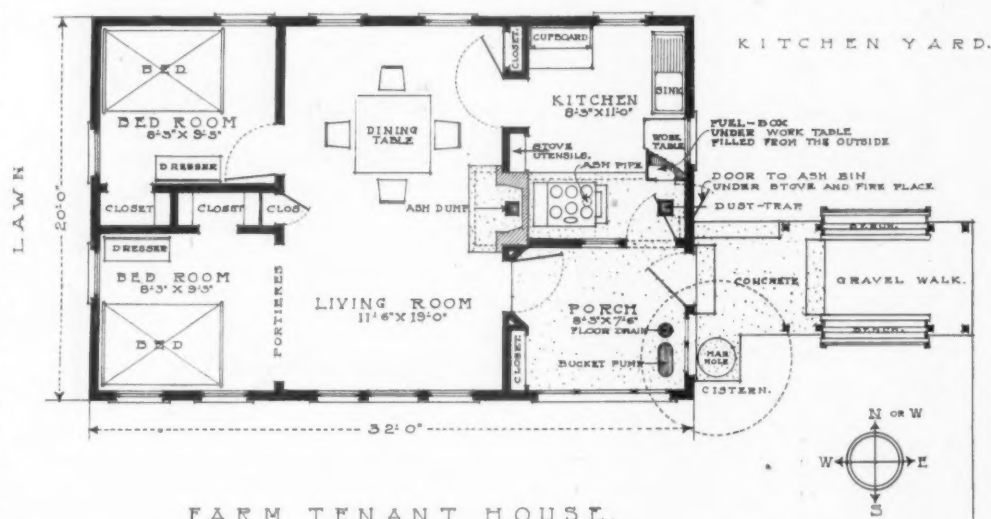
Special emphasis has been put upon providing a little home that will be conducive to the health of the family, provide for its social and domestic needs, and save unnecessary steps and operations on the part of the housekeeper.

The architects' studies seem to make it clear

the most inexpensive arrangement consistent with the needs and the convenience of a small family. It has but one chimney and but one outside entrance.

### The Single Door.

The home has but one entrance, which would be insufficient in a town house, and it may be in this one; but another door can be gotten into the plan only by a sacrifice of wall and floor space, which cannot be spared, or by increasing the size and cost of the house, which, in connection with this



FARM TENANT HOUSE.

that many homes in towns as well as in the country could have been greatly improved and at the same time built at less expense if they had been studiously planned to meet the family needs, skillfully designed and carefully constructed.

### The Tenant House.

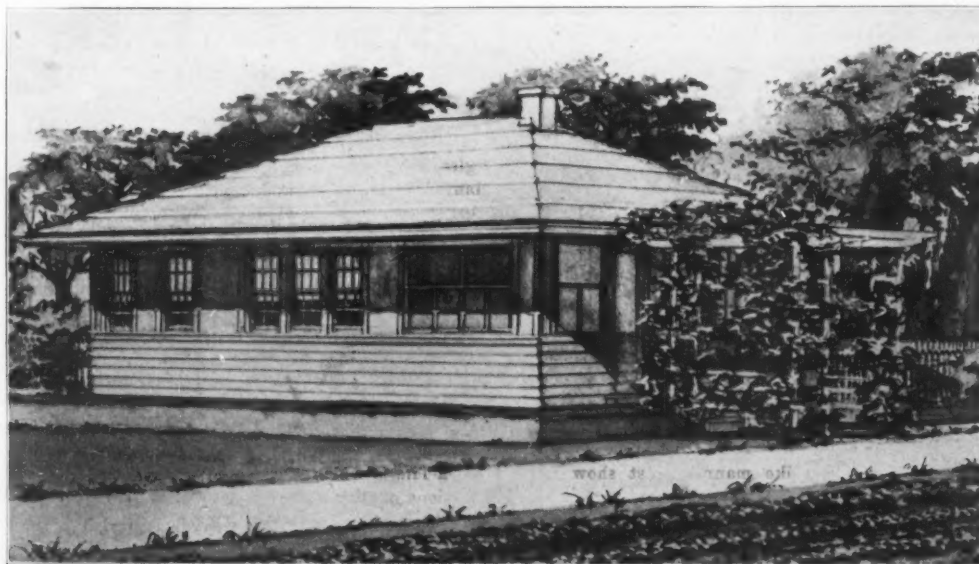
The tenant house, perspective drawing and plans of which are shown, is a simple, four-cornered structure, without bay windows, gables and dormers, or any projection save the cornice, which overhangs and protects the walls and window openings. The house is planned for the smallest dimensions and

problem, cannot be done. If a door is substituted for one of the three windows in the south end of the living room the best part of the room will be ruined. Moving the entrance door to the south side of the porch would not only restrict the uses of the porch, but necessitate an outside door in the kitchen which, in turn, would necessitate a corresponding increase in the floor and wall space of the kitchen. If the door that opens from living room to porch were moved farther from the fireplace, valuable floor and wall space in both room and porch would be sacrificed.

These little details affect the size of rooms and of the building and, therefore, the cost. They are sometimes, and of necessity, influenced more by economy than by convenience; but by careful study they may often be made consistent with both. It is economical, for instance, to have but one outside entrance to this house. With this entrance nearest the barns and the entrance from the highway and treated as it is with the simple and inexpensive pergola and benches, which separate the lawn and the back yard, it should serve every purpose of a front door, and as well, also, a kitchen door. In many ten and twelve-room farmhouses with three or four outside doors, only one door is much used and that one is either in or near the kitchen.

Notwithstanding the simplicity and the playhouse appearance of the building suggested by the department, it provides more usable space for the daily activities of the family than many larger houses. It is more convenient for a small family, more comfortable, healthful and delightful than many farmhouses costing twice as much.

Very few residences of any size or cost have a kitchen more pleasantly located, better lighted and ventilated, and more conveniently arranged than



IDEAL FARMHOUSE FOR SMALL FAMILY.

this little four-room house. It is brightened by the morning sun, cooled by the southern breezes, and shielded from the intense heat of summer afternoons. It commands a view of the garden, the play grounds, the barns, the lawn, the gate and the highway. It opens on to a screened porch which, in summer, is the most livable nook in the house. Much of the kitchen work may be done there away from the fumes and the heat of the stove which, happily for the other rooms of the house, blow out through the north and east windows.

#### \*Location of Stove and Ash Bin.

The stove is well lighted and, with the porch window closed, it is out of the cross-drafts of air. It is within six feet of the most distant fixture in the kitchen and but little farther from the dining table. All stove utensils are within reach and the work table and the fuel in the box beneath it are but two steps away. The ashes drop from the fire-box of the stove, through a short pipe to the ash bin beneath the concrete floor.

The walls of this under-floor bin are shown on the plans by dotted lines. The bin is under the stove and fireplace and extends to the outer foundation wall of the kitchen where the ashes and floor sweepings are removed by means of a long handle drag. If the building is raised on a front terrace, as shown in figure 2, the bin will be 26 inches deep with its floor at ground level. With a cellar under the kitchen the bin need be extended only to the front end of the stove. It will be deep enough to hold a year's supply of ashes.

The fuel box, supporting the table top, occupies space which might otherwise be wasted. It is filled from the outside of the house and emptied from the inside through a small door over the concrete floor.

A trap or dump, like that in the fire place, is provided for floor sweepings and possible dust from the door of the coal or wood box. It is in the concrete floor, behind the kitchen door, near the fuel box opening and over the ash bin.

The water problem also has been carefully considered in this little plan. Cistern water may be drawn from the bucket pump on the porch or, if desired, from a pitcher pump at the sink. Hot water is heated and stored in the reservoir of the stove. The sink, with only the drain pipe to be provided, is too inexpensive to omit from any kitchen and space enough has been saved in this one to more than pay for all such conveniences.

This little kitchen excels many others in not being a thoroughfare to other rooms. The men and boys will wash on the porch, leave their hats and rain coats there, and enter the living room without disturbing the kitchen workers.

The screened porch is as large as the plan will permit; but too small for all the purposes for which it will be in demand. Besides the usual kitchen work, the ironing and perhaps the clothes washing will be done there. The one screen door locks up the house, and butter, meat, and milk put on the porch to cool at night, will be secure against dogs and cats. The porch will be in demand also as a dining-porch, sitting-porch, sleeping-porch, and play room. Its uses and the comfort of the house in winter may still further be increased by putting in porch sash and a solid door.

#### The Living Room.

The living room is large enough for the longest dining table that harvest days will ever require and, with its two routes to the kitchen, it is unusually convenient for feeding a large number of workmen. With triple windows on the south and two on the north, a screened porch on the east and an alcove bedroom on the west, it is as pleasant a dining and sitting room as a \$5,000 house can afford and, with a glowing fire in the hearth, it may be as comfortable and as cheerful in winter as a steam-heated mansion. A conservative estimate by the designer places the cost of constructing this house at approximately \$1,000.

## Roofing Materials

### Asphalt Shingles Easily Sold.

Just a few years back whenever roof coverings were thought of or desired, nothing but the wooden shingle was considered, but conditions are changing. Today the wooden shingle is much scarcer than it was in days gone by. It is being manufactured almost exclusively in the northern and western states, hence by the time it reaches dealers and, through them, the consumers in the markets of the eastern and central states, the freight rates have placed a high price on the shingle, which is not always of the best grade.

The modern shingle is the asphalt shingle. The popular size of these shingles is 8x12x3-4 inches, four inches of the length being exposed to the weather. They are absolutely waterproof and in most cases are coated with crushed rock. To effect a desired color these shingles are coated with rock of different tints. The popular colors are gray, green, red and slate.

When laid with the four inches exposed to the weather, these shingles form three thicknesses of absolutely waterproof material and wherever nails occur, there are four thicknesses.

Attractive features of asphalt shingles are the neat appearance which they give to buildings and the fact that they require no painting and will last an indefinite number of years.

Asphalt shingles are just the thing for residences and public buildings. Their color aids materially in bringing out any color scheme that an architect or builder may desire. The possibilities obtainable with the decorative effect of red, green, gray or slate color roofs are easily comprehended.

The uniform size and thickness of asphalt shingles is in their favor as they can be laid quicker and cheaper than shingles of various sizes. They are fireproof, waterproof and non-conductors of heat and cold.

### Weatherproof Quality Valuable.

Prepared roofing materials may have many qualities, but one that appeals to every intelligent builder can be considered its principal quality. This principal quality of prepared roofing is its weatherproofness. Prepared roofing, whether used in the roof or as an asphalt shingle, must resist strong winds, the fierce heat of the sun's warmest rays, and the extreme cold of winter.

Rain can have but little effect upon a prepared roofing material of which weatherproofness is the principal quality. The materials used in the manufacture of these products become a part of the entire mass, and are not washed out during rain storms. Strong winds will likewise leave buildings upon which this material of quality has been used, undamaged.

It undoubtedly is thought by prospective purchasers of roofing material that the intense heat of the sun's rays during the summer months will have a tendency to disintegrate materials used in the manufacture of these products. Years of experience, however, have assured the American people that prepared roofing materials are made today so that they will be able to withstand the effect of the hot summer sun.

These materials in like manner must show up well in cold weather. It may not be as easy to understand why coldness should have a disastrous effect upon prepared roofing, but when prospective customers are criticizing a product, they seem to

be able to form the most imaginary ideas—and sometimes they are justified in asking what the average dealer would consider a foolish question. Extreme cold weather may have an effect on some prepared roofing materials but when weatherproofness is the principal quality of the product that you handle, you can assure your customer that the coldness of the weather will have absolutely no effect upon the materials you have for sale.

Usually the top flat of city flat buildings is extremely warm during the summer months. Heat penetrates the roof and enters the rooms with little less fierceness than is displayed when the door of a furnace is opened. How to overcome this disagreeable feature of the second, third or fourth (whichever the case might be) apartment? is a question which owners and agents have long sought to solve.

If the roofs were constructed properly of prepared materials, it is believed that the disagreeableness of city flats during summer months would be largely eliminated.

### Products That Meet a Two-Fold Need.

The growing demand for building products that not only add to the appearance of the home but that are also lasting and permanent has been ably met by the Heppes Co., Kral Avenue and Fillmore street, Chicago, with their "Utility" wall board and "Flex-a-Tile" asphalt shingles.

The Heppes Co. state that with the exclusive process employed in making "Utility" wall board it has obtained for them an interior building material that in addition to having all the advantages of wood pulp eliminates the disadvantages of expansion and contraction. They also claim that "Utility," owing to its improved construction, never chips, checks nor cracks and provides a smooth and most satisfactory wall for decorative purposes. The fact that "Utility" is so conveniently put on and is so economical is responsible in a great measure for its increasing popularity among home-owners. "Utility" is now the only five-ply wall board on the market; and this feature adds greatly to its desirability.

"Flex-a-Tile" asphalt shingles, too, are claimed to fill a great need, for they assure the roof lasting durability and add a distinctly artistic note to its appearance. A remarkable asphalt shingle, called the "Giant," is the latest addition to the "Flex-a-Tile" line. It is made to lay five inches to the weather and consequently, takes fewer shingles to cover a roof. The thickness of the "Giant" is another point of merit. This is due to the grades of felt and asphalt used, the last saturation being with a special gilsonite asphalt, with a melting point of 290 degrees F.

The construction of all "Flex-a-Tile" is of fine asphalt and wool felt with surface facing of chipped slate or granite, which gives the much desired qualities of flexibility and hardness. The beautiful natural colors of the slate or granite are absolutely non-fading and thus eliminate the need and expense of painting. Many of the most beautiful homes in the country are being roofed with "Flex-a-Tile," which is striking evidence of their meritorious quality.

Specimens of "Flex-a-Tile Giant" shingles, together with interesting literature, are offered by the Heppes Co. to any reader who writes for them.



# News of the Trade

## Pittsburgh Retailers.

**Situation Featured by the Proposed Construction of New Plants and Additions to Old Ones—Prospects Considered Good.**

Pittsburgh, Pa., March 5.—With from one to two feet of snow on the level and the thermometer bobbing up and down around zero, retailers in builders' supplies have not had much opportunity to do business the past few weeks. The month of February was cold and stormy throughout. It was almost impossible to go ahead with outside construction work. The prospects, however, received by retailers indicate that when the sun really gets busy there will be a lot doing. Reports go to show that the building situation is very much better in prospect than it has been for years.

Capitalists of Wampum, Pa., are forming a company and will build a large plant this spring to manufacture brick, sewer pipe and cement tile and blocks.

Mayor Joseph G. Armstrong is arranging to push work rapidly on the Hamilton avenue extension and also the approaches to the new Point bridge over the Allegheny river.

## Philadelphia Retailers.

**Demand for Building Material Seasonably Quiet—Agricultural Lime Finding Early Inquiry.**

Philadelphia, Pa., March 5.—The general building material market values have been and are being well sustained. Manufacturers generally report a good volume of business on hand, while inquiries are said to be comparatively numerous. Especially is this true of the lime and cement markets. The cement trade has maintained its former current conditions, while the lime dealers are commencing to feel some slight effects of early inquiries for agricultural and building lime. With the sand and gravel trade conditions have felt, to a certain degree, the effects of the recent frigid weather and with it the slackening demand for this material.

A representative of the Eastern Sand Co. reports: "We are now in the midst of our usual winter slackness, but the open weather conditions kept things moving quite steadily throughout the previous month, during which time conditions with us were entirely satisfactory. We are highly optimistic over the prospects for 1914, as a whole."

At the establishment of the Union Building Material Co., 630 Filbert St., it was learned that business with this house has been seasonably active, but that the regular winter falling off in the demand had been evident.

Business with J. B. King & Co., 24 South Seventh St., dealers in calcined lime, plaster, plaster boards and marble dust, is highly favorable and the total for January showed certain increases over that of the past year. It was stated by a representative of the company that they believed that the year of 1914 would experience a great increase in the consumption of building materials, which fact is based upon the number of inquiries now being made for materials for work to be opened at the resumption of the building activities, together with the reports current from the builders and allied interests.

Jos. B. Richardson & Sons, 120 Stockton St., Trenton, N. J., dealers in cement, lime, terra cotta, pipe, "Neponset papers" and building stone for cellars and bridges, has a good supply of stock on

hand at the yards and is doing a good volume of business. A most optimistic feeling is being maintained by this company which, it is said, is based upon definite business producing prospects.

At the yards of the David France Co., Tasker St. Wharf, Delaware river, dealers in bar sand, gravel, stone, Portland cement, lime, slag, grit, hair, plaster, roofing, pitch, roofing felt and flue liners, business is reported as moving to a seasonable capacity, although the business has begun to feel certain quieting effects as a result of the recent break in the weather.

"Although business conditions were slightly unsettled and the outlook indefinite," said Howard B. French, of Samuel H. French & Co., "things have adjusted themselves in a far more encouraging manner for the material dealer within recent weeks and the outlook for the future has assumed a much brighter perspective. We are optimistic and hopeful for an early resumption of an active demand." This company is the sole agents for "Dexter" Portland cement.

## Louisville News Notes.

**Bad Weather Acts As Damper on Building Activities—Building Material Men May Organize Credit Association.**

Louisville, Ky., March 5.—In spite of the advance of the season, dealers in building materials in and around Louisville "regret to report" that things have not as yet shown any signs of livening up. In fact, the month of February was extraordinarily slow in every respect, showing no indications of an awakening in the building trades. This was largely due to the fact that the worst weather of the winter was experienced, after two months of mild weather with a marked absence of snow and cold.

This naturally tended to discourage building and was perhaps largely responsible for the heavy slump in the number of building permits taken out during the month, as compared with the corresponding month of last year. The decrease could hardly be blamed entirely on the weather, however, the general quiet in business, with the lack of confidence which is noticeable in all lines, no doubt having much to do with it.

The Union Cement & Lime Co., which recently extended its building material department very largely, has added the line of the Thomas Moulding Brick Co., of Chicago, to its goods in this department. The Moulding company manufactures the well-known Tiffany enameled brick, firebrick and fireproofing, and a general line of building specialties. L. M. Parsons, who has charge of sales in this department, has completed his show room in the Starks building and is very much pleased with the handsome appearance of his various lines.

Besides Lehigh cement and several kinds of lime, which Owen Tyler has handled for some time, he will now sell face brick and hollow tile, manufactured by the Western Brick Co., of Danville, Ill., and the Thomas Molding Brick Co., of Chicago, Ill., besides a line of wall-board, a good metal window strip, fireproof doors and shutters, and other goods. A showroom has been established in the new Starks building in which a handsome line of samples will be carried.

A. E. Livingston, vice president and general manager of the Louisville Builders' Supply Co., reports that business has been rather slow, although prospects are bright for the spring season, whenever it decides to open up.

The R. B. Tyler Co. has rearranged the goods in its display room on Fourth street, so as to show the various lines off to much better advantage than formerly. A handsome mahogany cabinet, fifteen feet long and six feet high, is used in displaying the various lines of metal building products manufactured by the Trussed Concrete Steel Co., of Detroit, Mich., the possibilities of wall board being demonstrated above this, while the rack of brick, shown below, is as complete as possible. A bookcase with sliding doors is used for the storage of catalogs, periodicals and literature of various sorts. The company intends shortly to enlarge its brick display, so as to show varieties of face and other building brick.

## San Francisco Retailers.

**Heavy Rainfall Delays Work on Many Important Projects—Active Preparations Being Made for Spring Business.**

San Francisco, March 5.—There has been a distinct improvement in the retail trade in San Francisco and vicinity, and to some extent throughout northern California. While there was a heavy rainfall in February, still it has been possible to put through considerable work in the larger towns, and in many localities around the Bay, the construction of dwellings seems to be almost as active as a year ago. Contracts are also being let for a good many larger buildings, notably for hotels and apartment houses in San Francisco, and the delivery of materials for such work is going forward more rapidly than was expected.

W. O. Badgley, of the Pacific Lime & Plaster Company, says the lime business is now picking up in good shape, after several months of extreme dullness.

James A. Wilson, who has been prominent in the affairs of the San Francisco Builders' Exchange for many years, died Feb. 14, after a brief illness. He was one of the founders of the local exchange, and for fifteen years up to two years ago was secretary of the organization, holding the office of president from then until his death.

W. W. Dennis, of the McNear Brick Agency, which handles a general line of building materials and is one of the leaders in the brick trade, says: "All lines of building material have been quiet for the last three months, but the outlook is good. Foreign money invested in California enterprises has relieved the pressure on the local banks, and development projects are going ahead rapidly. It will probably be the first of May before this is greatly felt in the material trade, but we all expect an active summer and fall. We have 11,000,000 brick sold for delivery this year, and the plant is running steadily, but deliveries will not begin for several weeks."

The Moron Lumber Co., handling a general line of building materials, which has been doing business in the oil field district of Kern county, has established a branch in Bakersfield, Cal.

The plant and business of the Marysville, Cal., Sand, Cement Block & Brick Co., located on the Yuba River in Marysville, has been purchased by the Pratt Building Material Co., Examiner building, San Francisco, which operates about ten sand and gravel pits in northern California. G. E. Greene, who is well known in Marysville and vicinity, will act as resident manager, taking charge of the company's business in the northern part of the state.



# How to Handle the Farmer

(By Frederick D. Curtiss.)

## Philosopher Relates Convention Experiences

Illuminates Farmer Jones with Incidents Relative to National Builders' Supply Association Meeting Held in Chicago

"I suppose you took in the convention of the National Builders' Supply Association in Chicago last month," said Farmer Jones as he walked into the office of the Philosopher and warmed himself before the heater.

"That's a pretty good guess," replied the Philosopher, with a chuckle, as though he recalled some of the good times in the City by the Lake. "I wouldn't have missed it for a good deal, for we certainly enjoyed all of the time we were there, and also got a lot of information that will come in handy."

"Just to prove that I was on the job, you can see me among those present at the banquet," and the Philosopher produced a number of the Daily Rock Products which contained a halftone picture of the feast.

"There were four of us who went to Chicago together," continued the Philosopher. "We were

that he would better check up on his work. He found the man hustling from door to door as fast as he could, pounding on each one vigorously.

"What on earth are you doing?" demanded the clerk.

"I've called the seventeen," replied the porter, "and I'll have the other four routed out in a few minutes."

"We happened to be among the seventeen and so we got an early start that morning."

"We went out to get breakfast and landed in a restaurant which was good enough as far as appearances went, but the portions of food were rather small. Of course we complained to the waiter and he did the best he could to fill us up, but allowed that the boss was inclined to run things that way."

"The old man almost never gives a charity handout," he said. "The other day a down-and-outer came in and asked the boss for something to eat. He was told to 'beat it,' but he said he wasn't a beggar and wanted to work for his eats, scrubbing floors, washing dishes, or anything. He said he was just out of prison and was starving. He had been sent up for splitting five dollar and one dollar bills with a razor, sticking the different parts together so that if they were kept with the big number up they would all pass for fives. It had taken the police several years to catch him."

"Do you know," went on the waiter, "the old man hired him right away. Said he wanted just such a man to slice the ham for the sandwiches."

"Well, after breakfasting in such a place we were pretty hungry when noon came around and one of the boys suggested that we go to a 'real place.' He steered us into one of those eating houses that looks as if it had been designed for a ball room and when the duke who ran things found us a table the hungry dealer ordered a spring chicken and a bottle of wine of the vintage of 1900. The grub finally arrived and the starving man sailed in. After a few mouthfuls he called the waiter."

"Look here," he said. "I ordered spring chicken and 1900 wine. You have brought a 1900 chicken and some of last spring's wine."

"That afternoon we got some sailing directions from the Chicagoans at the convention and after that we fared pretty well."

"One of the boys went out on the South Side one day to call on some friends. When he boarded the street car to return to the hotel he couldn't find anything in his pocket smaller than a \$10 bill. This he offered to the conductor."

"You don't want a street car," said the conductor, looking at the ten-spot in disgust. "What you want is a taxi." Then he pulled the bell rope and my friend had to get off and find a place where he could get the bill changed."

"We had some pretty good times and the people in Chicago whom we met were mighty pleasant. We older fellows stuck to the Cement Show and the theaters for the most part, but the younger chaps had quite a look-in at society. One of the youngsters was invited to a dinner party, and the next day attended a reception, where he met a very attractive woman."

"I am told," she said, "that my lovely cousin, Miss K., has made a deep impression on you."



"THE TRAIN PUT ON MORE SPEED AND LEFT HIM THERE."

on a through train and Jim Wilkins leaned too far out of the window while we were going through a little town and tumbled into a snow drift at the end of the station platform. He smashed his hat and bruised himself a bit, but the thing which bothered the most was that the train put on more speed and left him there."

"What on earth will I do?" he asked the station master.

"You're all right, replied the railroad man. 'Your ticket allows you to stop off here.'

"It happened that the conductor had not taken up his ticket and so Wilkins caught the next train and caught up with us in Chicago."

"Some of the fellows who were in the party wanted to make the trip as economically as possible, so they persuaded us to go to a small hotel. A new porter had just taken hold there and what he didn't know about hotels would fill a book. At 5 o'clock the next morning the night clerk called the porter and said:

"Call 17 and 4," referring to the call sheet.

"The porter disappeared and after he had been gone for a considerable time the clerk got a hunch



"I'VE CALLED SEVENTEEN."



"I WAS YOUR DINNER PARTNER."

"Is Miss K. your cousin?" said the young man excitedly. "Indeed, she did make an impression. She is one of the loveliest girls I ever met. I'll tell you what kind of a hit she made with me. I met her at a dinner party last night and she sat on the other side of me. I talked with her the whole time and I can't even remember who my dinner partner was."

"I thought so," said the attractive woman, dryly. "I was your dinner partner."

"Still, with a little slip like that, here and there, the occasion on the whole was most enjoyable. The Chicagoans are good entertainers and perhaps one of the delegates hit it close enough when he said:

"By George, I've had a good time. I have had dinners and suppers and breakfasts galore. In fact, I haven't had my knife out of my mouth since I struck town."

"At that I don't want to give you the idea that our outfit has any considerable number of sword-swallowers as members. Just take another look at that banquet picture and see what a classy crowd we are."

"This chap I was telling you about provided a lot of fun for those who know him. He had never

been to Chicago before and he wanted to see all of the elephants in the town. One day he went to the Art Institute and walked through every gallery. The next day he went back again. He seemed puzzled after going through a few of the rooms and called to an attendant.

"Those are the same pictures I saw here yesterday," he said.

"Quite likely," was the reply.

"Well, I don't think much of your show," he added. "I was told that all the good picture houses changed pictures every day."

"He didn't want to spend money at an expensive hotel, he said, so he had a room in a boarding house on the North Side. One night he fell in with some salesmen for material manufacturers who wanted to get his business and they bought him more drinks than he could carry. He never thought of taking a taxi to get home, but walked. At that he got along all right until he bumped into a big tree and fell over. He got up and bumped into the tree again. A third time he fetched up against the same tree and with all memory jolted out of him he sat down to cry:

"Lost! Lost in a dense forest!" he wailed.

"A night watchman happened along and helped him home or else he might have had to sleep in a police station.

"Most of us live in small towns and go along pretty quietly. Consequently the round of entertainment at a convention gets a little bit wearing. One of the dealers had promised to take his wife to a theater and started to make good, although he confessed to me that he would rather go to bed. When he showed up ready to go the good lady objected to the tie he wore, as it clashed with the color of her gown, and sent him back to the room to change. She waited a while and, fearing that they would be late, went up after her hubby. She found him getting into bed. When he took off his collar to change the tie he sort of lost track and started to do the thing he most wanted to.

"Some of the busiest people at the convention were the manufacturers. Of course they had to hear their sins recounted by the speakers, and once in a while one would run into a dealer like myself

ligious. He soon got into the habit of talking with his brother about the beauties and comforts of religion and urging him to join the church.

"Yes, Jim," replied the unconverted one, "I



"THE JANITOR IS NOW SUPERINTENDENT."

know that it must be mighty comforting and altogether helpful to be a good church member, and I would like to join. But jest look here, Jim. Somebody in this firm has got to be left to deal direct with the contractors when there is a big job that we want to pass up the dealer on."

"They invested some of their profits in a flat building and the pious one hunted up the other one day with distress showing all over him.

"The janitor wants \$10 more a month or he will leave," he announced. "He is a good janitor and we can't spare him, but I hate to give him the money."

"The other partner said he would see what he could do and walked away.

"It's all right," he announced when he returned. "I've satisfied him and it didn't cost us anything."

"How's that?"

"The janitor is now the superintendent."

"Good work, but why didn't we make him superintendent in the first place?"

"Because," was the reply, "I knew he'd want a promotion before long. Every man wants a promotion some time and to my mind a good man deserves one."

"They get a bump once in a while, however. Some of their customers had grown tired of their peculiar ways and gone to other dealers and so they got a new drummer. They warned him before he started out that his predecessor had lost business because he had no tact, for they believed that was the trouble. So the new man went forth all primed to be a diplomat and in a short time he began to send back a lot of orders. The climax came when a big order came from a firm with which the brothers had a bitter quarrel.

"The new salesman was called into the office on his return and asked how he had managed that particular miracle.

"I used tact, sir," he replied, "as you warned me to. When I got into the office the boss there came

up and asked me what firm I represented. Remembering the circumstances I handed him my card and said: "Why these blooming idiots," and it seemed to make a hit with him."

"How about all of the educational advantages of the convention, the business relations established and all of the rest of the things you have been talking of so much?" asked Jones, whose mind invariably turns to the practical side of affairs.

"Oh, they were all present and voting," replied the Philosopher. "For the educational side I will let you read the proceedings of the convention in ROCK PRODUCTS and BUILDING MATERIALS. The business relationships and the rest may be observed if you watch my smoke closely for the next few months. It looks as though we would have a pretty good year in the building trades."

### News of Interest From the Northwest.

Minneapolis, Minn., Mar. 7.—The prospects for a busy building season in the Northwest were never better than at the present time. January, 1914, holds the building record for 30 years in St. Paul, according to the figures in the office of the building inspector. During that month, 202 permits were issued, and the total valuation of buildings erected is \$514,312. Permits issued in St. Paul in January, 1913, numbered 184, with a valuation of \$322,834. The increase in valuation over January, 1913, is \$191,478. The nearest competitor in 30 years was January, 1912, when the valuation amounted to \$443,954.

Minneapolis building operations in 1914 bid fair to break all records. Architects, contractors, builders' exchange men and material dealers today made the enthusiastic assertion that present prospects are far more encouraging than they were at this time in 1913 and there have been few building years in Minneapolis like the year just past. Eugene Young, secretary of the Builders' Exchange, estimated from figures now in his office that building operations in the Northwest would be at least 50 per cent greater than those of last year.



"SOMEBODY MUST DEAL DIRECT WITH THE CONTRACTORS."

"There is going to be a big rush in the building business this year," said P. G. Speakes, head of the P. G. Speakes & Bros. Lime & Cement Co. "Minneapolis is the bright spot on the map just now so far as prospective building operations are concerned and the supply of material was never better. I anticipate no rise in prices for some time and the labor situation is even better for building than it was last year."



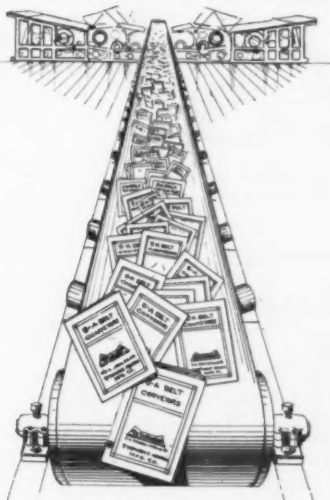
"LOST! LOST IN A DENSE FOREST!"

who was glad of the opportunity to tell some things right out in friendly conversation, but they made a lot of hay and some new customers. Most of the manufacturers try to do the right thing, I believe, and when a legitimate kick is made they try to square matters and keep the customer satisfied. There were two brothers, though, who were the prize exhibit of all. Every other man you met had a story to tell about them. It seems that one joined the church and became exceedingly re-



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Ceresit makes good for you by making good for your customers. It builds business upon reputation for reliability. It compels sales by its demonstrated superiority. It brings home the profits.

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924 Westminster Bldg., Chicago

FACTORIES—Chicago, Una, Germany, London, Paris, Vienna, Warsaw.

C E R E S I T



# C E R E S I T

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We are covering the Engineering, Contracting, Architectural, Building, and other fields thoroughly with strong advertising in good sized space. You'll see our advertisements in all the leading papers.

As soon as we have our territories thoroughly covered by dealers, we are going to branch out and advertise even more extensively in the general, farm, and supplementary papers.

You've still got a chance to get in on this.

We maintain an expert staff of waterproofing engineers to help land specifications and contracts by giving actual facts and information.

Moreover, we offer a monthly prize to salesmen of Dealers who sell over a given amount of Ceresit in a month. This plan is proving a wonder. The salesmen are full of pepper when there's a chance to sell Ceresit. You profit and we profit. The March prize, —a handsome travelling set that every salesman will want and will appreciate.

In brief, Mr. Dealer, we co-operate with you in every possible way to the end that your profits and ours may grow.

It pays to represent such a concern, doesn't it? So write for our proposition—*now*—before it slips your mind or some other dealer beats you to it.

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### Ceresit Waterproofing Company

924 Westminster Bldg., Chicago

FACTORIES—Chicago, Una, Germany, London, Paris, Vienna, Warsaw.

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C E R E S I T

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# CEMENT

## A California Cement Quarry

BY W. S. McRAE.\*

The Pacific Portland Cement Company's quarry is located in El Dorado county, five miles east of Auburn, Placer county, California. Transportation to the kilns at Cement, California, is furnished by the main line of the Southern Pacific, from Cement to Auburn and by their own private road from Auburn to the quarry. The construction of this latter road was notable because it was necessary to build one of the largest reinforced concrete bridges in the United States in order to cross the American river. A view of the quarry site is shown herewith.

The lime rock is of a very high grade and is found in a ledge which may easily be traced by outcroppings whose general direction is from north to south.

The deposits now being worked were first prospected in 1910 with a Sullivan Diamond Core drill. The accompanying illustration, showing four consecutive "pulls" of core, averaging nine feet, four inches long, indicate the quality of the stone and its extent.

Active quarrying operations were begun in March, 1912, by the "glory hole" method. The rock is hauled by cable in six-ton cars from the bottom of the glory hole to the crusher, where it passes through a No. 9 crusher into a 60-inchx10-foot screen; thence into bins, and from there it is drawn through two No. 6 crushers, distributed into the conveyor belts and carried a distance of 425 feet to the bunkers. The product is then ready to be loaded on cars for transportation to the kilns at Cement, California. The capacity of the crusher plant is 1,500 tons per ten-hour day.

### Power Plant.

A 100-H. P. induction motor is used to drive a Sullivan "WJ" Compressor, which is of the cross-compound, self-oiling, belt-driven type. The low pressure cylinder is 16 inches in diameter; high pressure cylinder 10 inches, and stroke 14 inches. This gives the machine a displacement capacity of 537 cubic feet at 165 R. P. M. The inlet valves are of the standard Sullivan semi-rotary type, with a

\*Sheldon Bldg., San Francisco, Calif.

clearance cut in the rear, filled by a film of air, which forces the valve constantly toward its seat. The discharge valves are of the direct acting type, arranged radially in the cylinder heads, in order to give low clearance. They set in brass cages, which in turn are set in pockets in the heads, making them easily accessible. This arrangement permits the ready removal of the valves and their seats for regrinding, thus insuring tightness, one of the



DIAMOND DRILL CORES FROM PACIFIC PORTLAND CEMENT COMPANY'S PROPERTY.

most vital factors in the economical operation of a compressor.

The air pressure carried is 100 pounds per square inch at the receiver. A 1,000-foot pipe line, 5 inches in diameter, distributes the air to glory holes No. 1 and No. 2, also to the open face quarry, No. 3.

From the standpoint of the quarry operator, one of the most interesting features of this plant is the successful application of small hammer drills. All blast holes, even as deep as twenty feet, are drilled

with machines of this type, thus, on account of their low air consumption, making possible a large output of rock with a much smaller air plant than would otherwise be required. Eighteen "DB-19," 41-pound, and seven "DB-15," 25-pound Sullivan air-jet hammer drills are operated from the 100-H. P. compressor previously mentioned.

The average time for drilling a 20-foot hole with a "DB-19" drill is one hour and fifteen minutes. The average drilling per tool in a 10-hour day is 100 feet when the holes are from 10 to 20 feet in depth. Considerable difficulty was encountered in getting 20-foot hollow steel. It finally became necessary to weld two pieces at the quarry. The change in gauge is made with changes in length of 3½ feet.

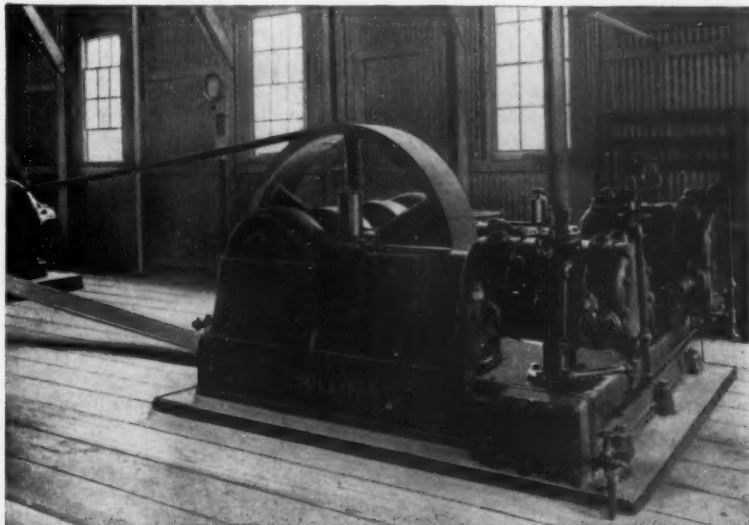
The "DB-15" tools are used principally for putting pop holes into the chunks and boulders that are too large to be handled without being broken up further.

The writer is indebted to Mr. Harold M. Powers, superintendent, for much of the information obtained.

### NEW CEMENT FACTORY IN THE CAUCASUS.

It is reported that a large cement factory with a yearly production of not less than 800,000 barrels is about to be erected in the Gori district of the Tiflis Government. It has been ascertained by geological investigation that there is sufficient material there for many years, and chemical analyses made in foreign laboratories of firms engaged in the construction of cement factories have shown that its quality is excellent. The factory is to be built according to the latest technical ideas and is to be operated by water power from the Kura River. It will be near the main line of the Transcaucasian State Railways, from which a branch is to be built directly to the factory.

A very attractive catalogue has been issued by the Sandusky Portland Cement Co., Sandusky, Ohio, on "Medusa White Portland Cement." Its uses for building ornamentation, stucco, concrete building blocks, interior decoration, statuary, cemetery work, parks and grounds, tile, mosaic, colored concrete, painting, stainless mortar, setting, etc., are described and many pictures illustrating the same are shown. The booklet contains 32 pages.



SULLIVAN "W. J." CROSS COMPOUND BELTED AIR COMPRESSOR, PACIFIC PORTLAND CEMENT CO., EL DORADO, CAL.



SITE AND BUILDINGS OF PACIFIC PORTLAND CEMENT CO., EL DORADO, CAL.

## Security Company Holds Annual Meeting

Baltimore, Md., March 5.—At the annual meeting of the Security Cement & Lime Company, Hagerstown, Md., a few days ago the president reported that the results of 1913 had been gratifyingly satisfactory and that the plants were in good shape to take care of the enlarged business which was expected for 1914. The shipments of cement from the Security plant during 1913 increased 40 per cent above the next best year, and there was also a large increase in the shipments of lime products from the Berkeley plant. The earnings above operating and selling expenses were approximately \$200,000 for the year.

The following officers were elected: Loring A. Cover, chairman of the board; J. A. Mason, president and general counsel; Charles Warner, vice-president; A. M. Tyree, treasurer and secretary, and John J. Porter, general manager. Directors: Charles Warner, William C. Robinson, William G. Nolting, Douglas H. Gordon, DeCourcy W. Thom, R. N. Jackson, Samuel C. Rowland, Horatio L. Whitridge, J. A. Mason, A. D. Warner, Jr., Loring A. Cover and Charles Catlett.

Charles Catlett, of Staunton, Va., who, as president, has been actively in charge during the past year, will remain in close touch with the company in an advisory capacity.

The direct operations of the company will be in the hands of Mr. Porter, the well-known metallurgical engineer and chemist, who has been assistant to the president during the past year. J. K. Barbour is general sales manager, located at Hagerstown, Md. H. S. Rayner is the Baltimore representative of the company.

In pursuance of the plan of the company to concentrate the operating staff at Hagerstown, Mr. Mason, the well-known attorney of that city, who is the counsel of the company, will also fill the position of president temporarily until a permanent president is chosen.

## PHILADELPHIA CEMENT NOTES.

Philadelphia, Pa., March 5.—At the annual meeting of the Association of American Portland Cement Manufacturers, held recently, the office of Honorary Member was created. In the sense of "Honor to whom honor is due," R. W. Lesley, of Philadelphia, has been elected the first honorary member of the association.

George C. Dawes, of the Alpha Portland Cement Company, was most sanguine that the barrelage of "Alpha" in 1914 would exceed that of last year. This prediction is based upon the fact that the shipments into Philadelphia and surrounding territory during January equaled those of January, 1913, while February shipments were heavier than those for the same period last year.

It will be good news to all the friends of Wallace King, Jr., the New York manager of the Giant Portland Cement Company, to know that he is again "in the saddle." Overwork made it necessary for Mr. King to take a well-earned rest, which has given him renewed vigor for the busy season to come.

## LEHIGH TO BUY NEW CASTLE PLANT.

At a meeting of the stockholders of the New Castle Portland Cement Co., held at New Castle, Pa., the directors were empowered to sell the company's holdings, involving \$1,200,000, to the Lehigh Portland Cement Co., which already has two large cement plants there. Each company has a capacity of 3,200 barrels a day. In addition to owning and operating a large cement plant, the selling company owns a large amount of limestone land and has leases upon several hundred addi-

tional acres. The New Castle Portland Cement Co. is composed entirely of local men. It is expected that several weeks will be required to complete the transfer of the property.

## SOUTHWESTERN ELECTS OFFICERS.

Directors of the Southwestern States Portland Cement Co., of Dallas, Texas, have elected the following officers to serve the ensuing year. Harley R. Brack, Dallas, president and general manager; C. H. McNider, Mason City, Ia., chairman of the board of directors; Thomas H. Dinsmore, New York, N. Y., vice-president; C. H. Wagner, Minneapolis, Minn., second vice-president; R. L. Lumbard, Dallas, secretary; C. I. Jones, Lincoln, Neb., treasurer.

"Concrete Alley Pavements" is the title of an interesting booklet issued by the Universal Portland Cement Co., Chicago, Ill. A number of illustrations are shown, with the proper description.

It is announced by the Canada Cement Co. that, owing to the dullness of business, they have decided to close down four of their plants for the balance of the year 1914, or until further notice. The plants affected are those at Marlbank, Ont.; Lakefield, Ont.; Shallow Lake, Ont., and Calgary, Alta.

The city of San Francisco, on February 16, opened bids for supplying the city with cement for the coming fiscal year. Four bids were received, all quoting a price of \$2.30 per barrel in carloads and \$2.55 in smaller lots. The business will be divided among all the bidders according to convenience for the work to be done.

The Marquette Cement Manufacturing Co., of Chicago and La Salle, Ill., recently completed additions to its works at La Salle, costing \$400,000 and consisting of a large electric generator plant, new compressors, grinding machinery and warehouses. These additional facilities will increase its production to 3,000,000 barrels of Portland cement per year.

According to information received by Vice Consul General Alfred W. Smith, Moscow, Russia, from Rostoff-on-Don, a new cement factory is being built in Amvrosievka, which, it is said, will be the largest cement-producing concern in Russia. The output is to be 2,000,000 barrels during the first two years and 6,000,000 barrels within three years thereafter.

An item in one of the Daily Rock Products appeared to the effect that the Dewey Portland Cement Co., Kansas City, Mo., is installing electric equipment in its plant at Dewey, Okla. As a matter of fact, the Dewey plant has been electrically driven since it started, the power house containing six gas engines with direct connected generators. The equipment mentioned in the article—a 1,125 kv.-a. generator, 150 kw. motor-generator set and switchboard; two 75-h. p., four 20-h. p. and two 10-h. p. motors—is for use in a coal plant the company has just erected. Prior to this time the company burned natural gas, but during the past year the coal plant was installed to provide pulverized coal for the kilns. The concern is still using natural gas for their engines and driers. F. L. Williamson, vice president and sales manager of the Dewey Portland Cement Co., advises that the Dewey plant is owned and operated by that concern, and not by the Oklahoma Portland Cement Co., as stated in the item.

## A Cement Sack Incident

Decision has just been rendered against a company that manufactures cement and hydrated lime, regarding the purchase of empty bags, in which the company was obliged to pay twice for the same bags. The facts are:

Two carloads of hydrated lime were shipped in returnable packages to a dealer. The dealer disposed of the material to a customer who paid him cash for both lime and bags. The dealer went into bankruptcy without having made settlement with the cement company. The dealer's customer returned the bags to the cement company prior to the bankruptcy proceedings and, in accordance with the usual custom, credit was given the dealer for the bags so returned. The dealer's customer was unable to collect his money from the dealer for the bags and sued the cement company.

The magistrate in rendering his decision against the cement company claimed that the return tags attached to the bags, reading "This bag will be purchased at 10 cents when returned in good condition, freight prepaid," etc., made a new contract with a third party when the bags were accepted by the cement company. As a result, the cement company was obliged to pay twice for the same bags.

To avoid a recurrence, the cement company now has all of its tags worded, "This bag will be purchased from Original Purchaser at 10 cents each," etc.

Fortunately for the industry, bankruptcy proceedings are not numerous among builders' supply dealers. It would be well, however, for the manufacturer to bear in mind the facts of the above case, when next he is ordering tags for return empty bags.

## EXPECTS TO PAY INDEBTEDNESS.

Bay City, Mich., March 5.—The Hecla Company, manufacturers of cement and former operators of an extensive plant at the mouth of the Saginaw river, in Michigan, and in which a large investment was made, still has its buildings and lands in Bay City, as well as \$55,000 bonds of the Beaver Coal Co., which are being paid as they fall due. It has sold its machinery and personal property and negotiations are being continued for the disposal of the property still remaining. It is probable that in the near future the corporation will be dissolved and further liquidation will take place through a receiver. The indebtedness of the company, after this dividend of 10 per cent is paid, amounts to \$80,353.58. It is said the company should realize from the bonds, land and buildings sufficient money to discharge the indebtedness. The buildings alone have been valued at \$100,000.

## A WESTERN CEMENT POSSIBILITY.

Livingston, Mont., March 2.—After a conference of those interested in the mammoth white cement properties at Gardiner it was unofficially announced that the cement mill there will be running by June 1. It is understood a Chicago capitalist has made arrangements to purchase the stock of some of those who have been at the head of the warring factions and that with this deal closed things will progress smoothly.

The Burt Portland Cement Company's plant at Bellevue, Mich., has inaugurated the bonus system which has resulted in the pay envelope of every employe working one year containing more money than regular wages. In some cases as high as \$25 additional was given out. The steady workers receive a certain per cent over their wages. The plant, which has closed down for repairs, employs between 250 and 300 men and will resume active operations in February.



# CONCRETE

## Conduct Tests on Water-Tight Concrete.

Results of great importance to those who have to do with concrete construction were obtained in a series of tests to determine the rate and amount of flow of water through concrete made by the College of Engineering of the University of Wisconsin, with the object of finding a simpler means of making concrete water-tight. The experimenters found that good results are obtained if the concrete remains in the mixer from two to three minutes when dry materials are employed. When the sand and gravel or stone are damp, a considerably longer time is required.

The experiments showed that mixtures consisting of one part of cement, one and one-half parts of Janesville sand of the Torpedo grade and three parts of Janesville gravel, when mixed to a wet consistency, are impervious to water when subjected to a pressure of 40 pounds per square inch. Mixtures as lean as one part of cement to six parts of gravel have been made impervious at high pressure by using care in proportioning the amount of water in mixing the batch.

The specimens used in making these tests were cylindrical in form and so made that the faces of the cylinders, which are  $13\frac{1}{2}$  inches in diameter, are exposed to the predetermined water pressure. The thickness of the concrete through which the water must pass can be varied from 4 to 18 inches.

The department also studied the effect of varying the percentages of cement and water, the grade of the sand and gravel, the proportioning of the mixture, the thoroughness of mixing and the effects of differing conditions on the hardening of the specimens.

## Philadelphia Concrete News.

Philadelphia, Pa., March 5.—Enos. L. Seeds, 6314 Wissahickon avenue, has been awarded the contract for the concrete work on the substructures of the bridge to be constructed over Maple avenue, Sellersville, Pa., for the Philadelphia & Reading railroad.

Harry Weir, city engineer, Wildwood, N. J., is preparing plans and specifications and surveys for a considerable amount of cement curbing work to be done on the various streets of Wildwood Crest.

William H. Cookman, Broad street station, is preparing plans and specifications for the construction of a concrete, steel and brick freight warehouse, to be erected at Harrisburg, Pa., for the Pennsylvania railroad; plans to be ready for bids in immediate future.

The concrete work to be done on the new Hotel Reading, at Reading, Pa., has been started and should weather conditions permit, it is planned to complete this work by the first of March.

Bids are being taken by J. W. Bisely, engineer, Bartlett building, Atlantic City, N. J., on plans and specifications for concrete bulkheads, to be constructed at Longport, N. J., at an estimated cost of \$10,000.

Franklin & Co., Crozer building, are working on plans and specifications for the construction of a reinforced concrete addition to a building in Chestnut Hill, for Walter H. Jarden, of this city.

## Decorative Possibilities of Concrete

The following extracts from an address by C. W. Boynton, M. W. S. E., Universal Portland Cement Co., and J. H. Libberton, Associate W. S. E., are full of information on the subject of decorative concrete:

"There is an old maxim to the effect that the designer should ornament his construction and not construct his ornamentation. This is an admirable saying, but should be subordinated to another rule, that he should ornament his structure only if he lacked the skill to make it beautiful in itself. A structure of any kind that is intended to serve a useful end should have the beauty of appropriateness for the purpose it is to serve. It should tell the truth, and if the character were such that it can be permitted to tell the whole truth, so much the better. It should preferably be beautiful and not beautified. There is a certain charm about a massive structure almost irrespective of design. Our idea of the beauty and grandeur of the Egyptian pyramids obtains primarily from the immensity of

caused many to undertake construction who are in no way fitted to carry it out, but with proper supervision, even the most unskilled laborer can accomplish pleasing results. This has been proved conclusively by the work of the Aberthaw Construction Co. at Port Antonio, Jamaica, in which very cheap labor was employed. The 56 columns for the structure were cast in sand molds, then put into a lathe and turned down and polished so as to expose the coarse aggregate. An intensely red coloring matter in the natural aggregate has given the walls a light salmon tint, which is very attractive. The building has been designed so as to be architecturally pleasing and will undoubtedly have its effect in educating the people to a better realization of what constitutes good architecture and design. A building should be fitted to the country in which it is located, and more and more attention is continually being given to the unity which must exist between the landscape and the layout of concrete structures which are to be added as permanent improvements.

"Notwithstanding the excellent decorative work which has been done in plain and reinforced concrete, there are nevertheless numerous advocates of tile decoration. Instances are many where the use of brick or tile emphasizes the contour and enlivens the surface at very little expense. A little touch of color relieves the monotony of a single toned exterior and is illustrated in the seed warehouse of Otto Schwill & Company, at Memphis, Tenn. This building would undoubtedly be equally as efficient were it built without any attention to pleasing architectural effects. With the present leaning toward pleasant workrooms for employees this idea has spread to the exterior with the result that our factories are surrounded by grass plots and gardens and the buildings themselves, so far as possible, are made to conform with the tendency toward providing pleasant environment.

It is not surprising that an individual directly connected with the cement industry as is Albert Moyer, should build of concrete, nor is it surprising that one who is so well versed in concrete construction should obtain very pleasing effects as indicated by the work made of exposed aggregates, employing a mixture of Portland cement with limestone screenings, marble chips and dark trap rock. Not stopping here, much dependence has been placed upon Moravian pottery decoration, which harmonizes well with the concrete surface, as is shown in the fireplace, with its inlaid panel showing an Indian at a fire. The balcony also has been worked out in pottery, but somewhat differently than the fireplace. The distinguishing feature lies in the fact that instead of being inlaid, the figure comes out in bas relief.

"For some time Alfred Hopkins of New York City has been a strong advocate of reinforced concrete for the construction of building and has added a large amount of information to our knowledge of the concrete of the old Romans, having investigated this point personally and in some detail. Nevertheless, Mr. Hopkins has never brought himself to believe that concrete should be used for ornamentation upon buildings of the same material. For this purpose he advocates terra cotta; and judging from the excellent work which he has achieved on the residence of Charles E. Rushmore, there is reason in his contention. This building is all of reinforced concrete to the roof and part of this has been constructed of concrete slabs. But for the panels and column capitals, Mr. Hopkins has turned to terra cotta tile, with excellent results. For the average individual, of course, a detail of this kind would be prohibitive in cost. But with such a sized undertaking as this mammoth residence, the high individual cost of these panels is small when compared with the total cost of the building. However, with the advances which



C. W. BOYNTON, UNIVERSAL PORTLAND CEMENT CO., CHICAGO, ILL.

the structures. There is no reason, however, why mass should not be combined with decoration. The question of pleasing effects depends not only on the surfaces and the surface treatment, but on the combination of design with the surface texture. The small town water supply tank, with its hemispherical bottom and sprawling legs is anything but an ornament in the community; however, this same type of structure was installed at Gary, Ind., but so well has it been concealed that the tower is a thing of beauty and possesses real architectural merit. The work of molding so large a structure in reinforced concrete was greater because of the forms required, the total height being 125 feet, but the finished structure justified the labor. Decoration, however, is not an essential of mass construction as has been clearly demonstrated by the Spanish in the design of the adobe dwellings and missions.

"Concrete, still in its formative state of development, is a comparatively new architectural material, although structurally it has been proving its permanence for many years. The particular reason for gratification comes in the new discoveries and new uses to which it is continually being put. Every day there arises some Philistine who has discovered something new and worthy of consideration. The very fact that concrete is simple in operation has

are being made in the use of colored aggregates, it is generally possible to obtain all the color variations necessary in the concrete itself. It is not customary to build reinforced concrete roofs of the pitched type. The ideal concrete house is built with a flat roof not only because architecturally the design may be made pleasing, but because this type is the most economical in cost and space. Reinforced concrete has brought with it a new architecture and the sooner we appreciate its value, the earlier will be the general adoption of reinforced concrete for residences, as well as the endless other types of construction to which it has already been applied.

"Oswald Herring has utilized lattice work on one of his most important dwellings in combination with decoration of molded concrete. Within, the lattice idea has been continued, but in an entirely novel manner, by simply stenciling the lines upon the wall. Wood paneling will break up large areas of concrete surface and is entirely in keeping with the old half-timbered style of architecture, so familiar to our fathers. It is impossible to appreciate the pleasing surface which has been obtained on this modest appearing dwelling, but a slight explanation may help to make clear how the effect is obtained. The finish is known as a dry dash and in this instance has been applied to concrete blocks. After the plaster coat has been applied, a dash mixture of white marble and blue-stone chips with gravel screenings is thrown on, which imbed in the mortar and furnish a clean, bright surface without further treatment. When a coarser effect is desired it can be obtained by a rough cast, the mortar mixture being thrown on with a paddle and the texture of the surface depending entirely upon the size and character of the aggregate and consistency of the mixture.

"Oswald Herring says that the so-called dry process concrete block is not of concrete at all. Having had little acquaintance with water during its process of manufacture, it consequently harbors an unquenchable thirst and when used in the outside walls of a building, every rainstorm furnishes the elements of a 'spree' to the detriment of the block and the appearance of the dwelling. The dry process, however, is not necessary, it being equally as easy to add enough water to insure excellent concrete. After considering the all-concrete buildings and the buildings in which other material has been used for ornamentation, it is interesting to turn to work where the latter condition has been reversed and is well illustrated by the work of S. A. Yourtee on the Kingsbury Apartments in St. Louis. The blocks were cast in sand molds, and on account of the surface given by this method, subsequent treatment was unnecessary because of the peculiar matte surface which the rough sand mold provides. Very intricate figures are easily worked out by this process and many buildings in St. Louis attest to Mr. Yourtee's skill in handling concrete.

"The chapel at St. Paul's Church at New Haven, Conn., has furnished an opportunity for the Economy Concrete Company of that city to demonstrate the superiority of its product, as concrete stone has been used for decorating the granite structure, over seventy-five years old. Another instance of concrete applied to ecclesiastical architecture is found in the Broadway Presbyterian Church of New York City. The natural stone walls of the building are of New York gneiss laid up in random ashlar, and all the trimming, including the window tracery, is of concrete stone. This was cast in sand molds by the Onondaga Litholite Company of Syracuse. The aggregate used for manufacturing this particular stone is made from Gouverneur marble, a hard calcite product from northern New York. This flinty material in crushing breaks up into sharp angular pieces, which are graded into several sizes, depending upon the work they are to enter. After removal from the sand molds, the concrete is care-

fully cured and then tooled and surfaced by machinery. The surface obtained is identical with natural stone—but oftentimes is superior to it, because of its greater ability to resist the action of the elements. It should make no difference whether the stone trimming is artificial or natural; the end achieved is that upon which we should pass judgment. In reality, it matters not whether the aggregate in the concrete has been bonded by nature, or by the hand of man with Portland cement as the binding material. So far as permanency is concerned, concrete has already proved beyond a doubt its superiority to many of the natural stones."

### New Concrete and Steel Coal Pockets.

The J. W. Ballard Company has recently completed and is now using new coal pockets in connection with the firm's builders' supply business at the yards on Jarvis street, Binghamton, N. Y. The new pockets are of the cantilever type of concrete and steel construction, and were designed by the owner, J. W. Ballard. They have been in operation over a month and are giving complete satisfaction. The J. W. Ballard Company is in the building material business also, and handle Atlas Portland cement exclusively, hence, Atlas should naturally be used in the construction of this plant, which was the case, as Mr. Ballard had painted in large letters on the side of the concrete pockets, "These cantilever type coal pockets are made of Atlas Portland cement, the same that built the Panama Canal," which can be seen from the trains on the D. L. & W. and Erie railroads, the plant being located on the main line of the D. L. & W.

The type of construction is a complete departure from the timber trestle so generally in use at the present time for the storage of coal. The main item in its favor is the elimination of a large number of massive pillars that usually obstruct the driveways beneath the coal pockets. The cantilever type gives more room for the free movement of trucks and wagons while loading. The struggle for efficiency, which has become a feature of the modern coal yards, has caused the development of speed records in loading. With the advantageous

arrangement of driveways about the yards, a great assistance is given in the handling of large tonnage.

In order to accomplish the necessary improvements in his yard, Mr. Ballard purchased the Cafferty block at the corner of Charlotte and Jarvis streets. Two of the apartments from the block of houses were separated from the balance of the buildings and moved across the street. Mr. Ballard's office building was jacked up on blocks and moved to the corner of Jarvis and Charlotte streets. The new coal pockets were then erected on the site where the office was formerly located.

Mr. Ballard states that the rapid growth of the city of Binghamton and the consequent increase in his business necessitated the improvement, as he was compelled to have more room for unloading cars of coal, cement, hollow tile, brick of all kinds, sewer pipe, sand, wall coping, metal lath, wall plaster, mortar colors, etc. By erecting the coal pockets on Jarvis street the desired room for the other lines of business was obtained. And not only that, but a saving of practically two blocks each way from where the old-style trestle was located, which is a saving of twenty-eight blocks per day for team and wagon which, in dollars and cents, is a saving of \$3.00 a day on the number of teams they have.

Crescent Concrete Mold Company, St. Louis, Mo.; \$6,000; John H. Bruninga, Thomas E. Vaughn and A. C. Stewart, incorporators.

Smith Concrete Tie Company, Birmingham, Ala., incorporated; capital stock, \$50,000; paid in, \$32,000; headquarters, Birmingham; officers, C. D. Smith, president; G. A. Hegeman, vice president; Kyle Lawson, secretary and treasurer.

The Hobbs Concrete Manufacturing Co., which moved to Adrian, Mich., from Detroit, has started active work in manufacturing its machines. The working force of the factory was first employed in getting the patterns in shape. Mr. Hobbs, the principal stockholder, will have personal charge of the business management while the factory will be superintended by Mr. Jordan, another of the stockholders. The main office will continue in Detroit for the present.



NEW CONCRETE AND STEEL COAL POCKETS OF J. W. BALLARD CO., BINGHAMTON, N. Y.



# LIME

## Winter Soil Treatment.

By Karl Langenbeck.

Every season on the farm has its duties, for in no business does work interlock to the same degree, and what is neglected today influences profits next year. By this time the mechanical out-door work of the fields is done and Nature is left to her own devices. Freezing, thawing, leaching, action of carbonic acid gas, weathering, all the forces of mechanical and chemical action on the soil, are most active now, it is well to stop and consider what this means and what the frosts and snows and thaws do for the land. Understanding opens the door for improving. The last crop and the fall rains have taken so much of the plant foods out of the soil as was in condition for solution and absorption by the rootlets. This has to be restored for the coming season's growth.

### Use of the Work Done.

The soil contains the necessary elements in abundance, but not in soluble, or as we may truly say, in digestible form. The cracking by frost of the soil particles letting in the water and acid of the air renders them so. Whatever work has been done on the land in breaking it up is so much to good in aiding these natural agencies. This much, every man understands, that work on land, plowing, breaking clods, harrowing, draining, helps fertility by helping Nature's mechanical forces unlock plant food.

### Bettering the Work Done.

What the farmer is seldom or never reminded of in simple unmistakable terms, is, that he can also aid Nature's chemical forces, for without these, plant foods are not made digestible or soluble in the soil in sufficient amount to pay. To remind oneself of what chemical forces are and how they work, smell a bottle of ammonia, put some lye or caustic on the skin or take a taste of sharp vinegar. Then, think how ammonia cleans, lye cuts grease and vinegar will dissolve marble and other hard stones.

### Making Tillage Effective.

Now, as physical and chemical forces act together in Nature, particularly in winter, to make available a new supply of digestible plant food, so must the farmer supplement the work of tillage by the solvent or digestive treatment of chemical agency. European farmers, who well understand this and average 35 bushels of wheat to the acre as against 15 bushels in America, and other crops in proportion, use the one chemical agent for the purpose, which can alone be applied. This agent is lime. Its sharp or caustic property makes it cut the insoluble silicates of potash and phosphates of alumina and iron, making potash and phosphates soluble. Burned lime (quicklime) can do no harm in winter to growing things. Where clover and legumes have been plowed under, it furthers their decomposition correcting the first souring stage and making good humus by Spring. Manure, which is vegetable and animal matter which has gone through this initial decomposition, should be applied some weeks after the lime. In this way, and at any rate at this season, humus destruction by quick lime is a negligible factor. For these reasons, use lime now. It can be put on the frozen ground or on the snow. It will at once begin to work downward and get in its work. Winter and fallow enable it to exert its benefits, bringing out what is in the soil itself, thereby cheapening next season's fertilizer bill.

The beneficial results of applying a variety of chemicals to the soil is an old experience in agri-

culture. Gypsum or crude plaster, marl, a form of carbonate of lime, with more or less of clay admixture, chalk, crushed limestone and the road dust of roads running through a lime country were used indiscriminately just as they were available. In districts distant from such materials, the plastering, stucco and mortar of old buildings that were pulled down was not wasted. They were applied to the hop gardens and truck farms near the villages and towns of England in the days of Bluff Price Hall.

We are speaking, of course, of old countries, where the keeping up of the fertility of the land has been a constant problem. And this is a problem we still have to learn in America, where virgin fertility is still so recent a tradition, if not a personally experienced fact with many, that farmers are slow to keep alive to its necessity.

Now, rural England, the home of our mother tongue, called all these various forms of chemicals by the general term "lime." "Liming the soil" meant applying any one or other of them, whichever was cheapest or easiest available. But it was also known, that if results were wanted in shorter time, burned lime such as used for mortar was best. It was, therefore, designated "quick lime" for "quick" meant alive in old English and "lime" an earthly chemical.

"Quick lime" is the good old English name for burned lime. It came from the farmer from the way it did its work—quick. As there were always more farmers than masons, their designation had the call and in the English of England, "burned lime" would not be understood for what it is by the generality of men for "quicklime" is the word. Now, it would be well for our farmers to remember this, for it tells the story of age long experience in a word. But, how is it that here in America we have lost the designation and do not, as in the mother tongue, understand by lime, a class of substance and the particular thing by "quicklime." Why, very naturally. Favored in agriculture by fertile soil, the American farmer forgot about fertilizing it with different chemicals. "Quicklime" became virtually a material of the mason alone. The designation "quick" was therefore dropped because it was considered senseless.

So, in American English, we know of lime as a particular thing. We have lost the farmers' term "quicklime" for the most active of lime derived chemicals. We hope American farmers will revive the expressive old English term, for it will tell its own story to the growing boys on the farm and, coupled with practical observation, make such scientific explanation unnecessary.

Bernard L. McNulty, vice-president and general manager of the Lagrade Lime & Stone Company, Anniston, Ala., reports that his concern has enjoyed a good business during the past year. "Hydrated lime is growing in favor with the southern contractors," said Mr. McNulty, "and the dealers are taking to it. We have supplied the hydrate used to plaster the Ansley Hotel at Atlanta, Ga., also the lime used in the construction of the court house at Athens, Ga., and a number of important buildings where a superior product was needed."

## MINING UNDER WATER.

Mining material for the manufacture of lime from the bottom of the sea is one of the unique sights on the island of Martinique, French West Indies. The bulk of the lime used on the island is manufactured from madreporic stone, or reef coral so mined. It is of good quality when made with care. Procuring the material for making lime would appear to be a most hazardous employment. The reefs from which the coral rock is taken are in the bay, fully a mile from shore. Small dugouts are floated over the reef and the coral brought up from the bottom by hooks or grapnels attached to poles 12 to 14 feet long. The boats are loaded until but a few inches of the sides are above water. It requires both skill and experience to load the boats without upsetting and to land the cargo without sinking.—Argonaut.

The Gabilan Lime Co., a San Francisco corporation, has leased to John D. Martin its property in the Cienega district of Monterey county, the agreement being that the company is to get 50 cents per ton royalty on the lime produced, on condition that the lease may be terminated at the end of a year if it proves unprofitable to the lessee. Mr. Martin is putting in some equipment, and it is understood that he intends to start in a small way, with an output of about 50 tons a day, enlarging the plant later if the venture is successful.

O'Neals' Lime Works, Eureka, Shelby Co., Ala., has let the contract and are installing a hydrating plant. Work was begun on the plant the early part of February.

George H. Plowman, 3220 Hall street, Dallas, Tex., is contemplating the erection of a lime plant in the near future and is in the market for equipment for the manufacture of lime.

**WHITEKOTE**  
HYDRATE  
**FINISH**

THE  
MOORES  
LIME CO.  
SPRINGFIELD  
OHIO

ITS ALL IN THE FINISH

"WHITEKOTE IS THE RIGHT COAT"

# CLAY PRODUCTS

## National Brick Manufacturers' Association Meets

**Important Sessions Held, at Which Valuable Papers Are Read—Paving Brick Makers in Executive Session—Machinery Men Map Out Campaign of Co-operation with Manufacturers.**

New Orleans, La., Mar. 7.—The first day's session of the twenty-eighth annual convention of the National Brick Manufacturers' Association was called to order at 10 o'clock Wednesday morning, March 4, at the Hotel Grunewald, by President W. H. H. Rodgers. After the invocation the delegates were welcomed to the city by Hon. Martin Behrman, mayor of New Orleans. Mayor Behrman, assured them of their welcome and spoke of the value of the industry to this city and the South. His address touched upon the needs of better streets and highways and the great extent it is possible for the manufacturers of brick, and more especially paving brick to contribute to that need. Mayor Behrman pointed out the natural advantages of New Orleans as a manufacturing and shipping center and very truthfully told the convention that every manufacturer would do well to move his big plant here and continue operations from New Orleans. The mayor was given an ovation.

W. D. Gates, of Chicago, a former president of the association, responded. Mr. Gates is one of the star orators of the National Brick Manufacturers' Association, and his response to Mayor Behrman's welcome was one of the hits of the first day's session.

President Rodgers read his report covering the past year's work of the association and pointed out the growth and development of the industry and the association's field of endeavor. President Rodgers declared that the efforts of the association had nothing to do with prices, but were always confined to bettering conditions among manufacturers and helping them get together for mutual advantage in modern and cost saving methods of production.

The report of Treasurer John W. Sibley showed that the association was in good financial condition and has a substantial balance to its credits in its bank.

The election and installation of officers was the next order of business.

Officers of the National Brick Manufacturers' Association for the ensuing year are:

President, Eben Rodgers, Alton, Ill.; first vice-president, O. P. Mayer, Bridgeville, Pa.; second vice-president, Charles J. Deckman, Cleveland; treasurer, John W. Sibley, Birmingham, Ala.; secretary, Theodore A. Randall, Indianapolis; assistant secretary, A. M. Wallace, Indianapolis.

D. V. Purington, of Ocean Springs, Miss., member of the committee on technical investigations, whose term expired yesterday, was also re-elected.

The new board of directors will consist of the officers of the association and its past presidents.

"The Need of Greater Thrift Among the Rising Generation" was the subject of the only paper read during this session. The author, L. E. Wolfe, of San Antonio, Tex., pointed out what thrift means and its practical application in the brick manufacturing industry.

### Thursday Session.

The Thursday meeting was called to order at 10 o'clock by President Rodgers and J. C. Schaffer, of Tiffin, Ohio, introduced. Mr. Schaffer addressed the convention on the subject of the "Cause of

Keen Competition in Building Material, or What Hurts the Clay Workers." What Mr. Schaffer characterized as "a lack of harmony between clay workers" was one of the principal causes of conditions as exist, as pointed out by Mr. Schaffer. Discussing methods for greater demand, Mr. Schaffer pointed out: "The clay products may be assumed to be old and well known, but we must remember that the public of today is rapidly absorbing a great deal of knowledge of other building material—a knowledge that has come to them through well-organized boosting and educational campaigns."

Mr. Schaffer advocated a number of remedies for existing conditions, one of which was that educational work in the utilization of clay products should be undertaken by the association.

Other papers read before the convention were: "The Power That Moves the World," by A. W. Hewitt, of New York; "Electricity in the Manufacture of Clay," by W. D. Richardson, of Shawnee, Ohio; "Smokeless Combustion as Applied to the Burning of Clay Products in Periodic Kilns," by Paul Beer, of Des Moines, and "Brick Engineering," by E. E. R. Tratman, of Chicago.

An illustrated lecture on "The March of Progress in the Clay World," by Prof. Edward Ornton, director of the ceramic school of the Ohio State University, of Columbus, was one of the features of the session. Illustrations of manufacturing plants in England, Germany and Sweden, with explanations of processes and methods of manufacture were the points brought out.

The meeting adjourned soon after noon and at 3 o'clock a large number of the visiting delegates and ladies were guests of the local committee on entertainment. The party took one of the river packets at the foot of Canal street and spent several hours seeing the harbor and shipping.

### Annual Banquet.

The twenty-eighth annual banquet of the association was the big social event of the convention and took place at the Hotel Grunewald Thursday night. Covers were laid for 260 guests, and the affair was very elaborate. Hon. L. E. Bentley was toastmaster, and in his happy humor introduced a number of after-dinner speakers, among whom were D. M. Purlington, of Ocean Springs, who responded to the toast, "Our Chart"; Dr. William McFarland Alexander, "Our Hobbies"; J. J. McLoughlin, of New Orleans, "How to Throw a Brick"; Herbert N. Casson, of New York, "Shock Absorbers"; Charles J. Deckman, of Cleveland, "Every Brick Man," J. S. McConnell, of Melton, Ontario, "Our Borderland"; John C. Boss, of Elkhart, Ind., "The Road to Happiness."

Friday was devoted to the reading of the technical papers prepared and the convention came to a close.

### National Paving Brick Executives Meet.

During the week several executive sessions of the National Paving Brick Manufacturers' Association were held. The most important action taken in these sessions was the decision to revise the number one specifications. It is proposed to

act in conjunction with the various National organizations that have an interest in paving matters and adopt a uniform specification.

Herbert L. Casson, N. Y., vice-president of the Lincoln Highway Association, and W. T. Blackburn, of Paris, Illinois, addressed the session.

### Machinery Manufacturers Hold Sessions.

The Machinery Manufacturers' Association held two meetings during the week. One of these was on Wednesday and the other Thursday. At the first session John C. Boss, of Elkhart, Indiana, was elected president and Roy Bennett, of Wellington, Ohio, secretary. Executive committeemen, H. H. Fate, of Plymouth, O.; R. T. Benott, of Bucyrus, O., and P. F. Crider, of Cincinnati. The machinery men decided to take hold of the organization work with greater zest in nineteen fourteen and mapped out a campaign. The old credit feature of the association which was established several years ago was revived and will be developed to a high degree of efficiency.

## Eastern Paving Brick Manufacturers Meet.

The Eastern Paving Brick Manufacturers' Association met in convention at Bradford, Pa., in the early part of February.

The first day's session was devoted to reports of the various officers and the election of those who were to serve during the coming year. C. E. Foster, of Bradford, Pa., was re-elected president; J. B. Hammond, of Bolivar, Pa., first vice-president; C. A. Young, of Pittsburgh, Pa., second vice-president; G. W. Lenkerd, of Indiana, Pa., secretary, and C. P. Mayer, of Bridgeville, Pa., treasurer.

The following men spoke during the session: Hon. H. R. Habgood, Will P. Blair, secretary of the National Paving Brick Manufacturers' Association, E. J. Herman, state organizer of the Pennsylvania Good Roads Association, C. P. Mayer, of Bridgeville, Pa., who spoke on "The Uniform Contract," M. E. Gregory, of Corning, N. Y., on "The Methods of Testing and Inspection of Paving Brick," G. W. Lenkerd, secretary, on "Cost Accounting," E. F. Bannon, city engineer of Hornell, N. Y., and J. B. Hammond, of Bolivar, Pa.

A banquet at the Hotel Holley closed the convention, which was one of the largest ever held in Bradford, and one of the most enthusiastic paving brick meetings ever held in this country.

## The Kansas Clay Workers Unite.

The Kansas clay workers joined into association activities and launched a new state association at Lawrence, Kans., Feb. 16 and 17.

The new association is to hold annual meetings at which note ceramic experts from all over the United States will be invited to make addresses and read papers of a technical nature, in an effort to solve some of the difficult problems of manufacture. Members also will be asked to participate in the program, thus adding the practical to the theoretical side of manufacturing problems.

Chancellor Strong, of Kansas University, in an address before the association declared that Kansas offers a great opportunity to the clayworker and abounds in the finest of shales and clays in a great variety of qualities and textures, very few of



which have been developed even to a limited extent.

Following the organization of the association a brief program was observed, several very interesting addresses being made.

The officers elected to serve the first year were as follows: Erasmus Haworth, Lawrence, presi-

### Middle West Clay Association Planned.

Dealers and manufacturers of face brick, common brick, tile makers, sewer pipe manufacturers, the manufacturers of hollow block and all other branches of the clay industry will be represented at a meeting to be held in Chicago at the LaSalle Hotel, March 19.

The advisability of forming a Central West clay association of the four central states under the standard of the open price policy will be discussed.

Secretary Bassler, of the Society of Vitrified Clay Manufacturers (sewer pipe manufacturers) will be one of the speakers and will tell how his organization, which has been operating under the principles of the open price for the past year, has profited by the New Competition.

It is proposed to form a new organization outside of the present state organizations in the four states mentioned and which will not conflict in any way with the operations of these other bodies. All manufacturers of burned clay products will be eligible to membership.

Some central point, Chicago probably, will be selected for headquarters and a paid secretary will be employed, according to the tentative plans formed by the committee which has the investigating work in hand.

The Chicago Face Brick Association has announced to this committee that it will enter into the new association as a body, which gives considerable encouragement to those that are interested in seeing the movement developed into a successful and perfect association.

A number of the largest plant owners in the four states have signified their intention of joining the association, if one be formed, and there is every evidence of a great interest throughout the territory in view.

### Pittsburg Clay News

Pittsburgh, Pa., March 5.—The Croxall Co., of East Liverpool, Ohio, has increased its capital from \$7,500 to \$30,000 in order to extend its operations.

Milton Brick Co., of Milton, Pa., will have its plants in shape to manufacture brick in large quantities by April 1st.

The Youngsville Shale Brick Co., at Youngsville, Pa., north of Pittsburgh, has not been sold as was reported frequently of late. The plant has been shut down for quite a long time.

The Royal Fire Brick plant of the W. J. Rainey Co., of Connellsville, Pa., which is located near that place, has resumed operations after being shut down since last September.

F. Vernon Aler, of Martinsburg, W. Va., has closed a deal for the new brick plant to be built at that place. It will operate on the Dixon tract of 23 acres and the Herring tract of 40 acres just east of Martinsburg, and shipments will be made over the B. & O.

C. W. Moore, E. N. Jones, John S. Seeds and J. F. Meek, of Altoona, Pa., have organized the Altoona Brick Co., which will be one of the leading concerns in that part of Pennsylvania.

The Trumbull Brick Co., at Warren, Ohio, is changing its equipment so that hereafter it will manufacture only fireproofing block. This company is a subsidiary of the Portage Silica Co., which already has in operation eight large kilns. The Trumbull Co. manufactures about 200,000 brick daily.

Harbison-Walker Refractories Co., with offices in the Farmers' Bank building, of this city, has posted a notice at its plants that the company will immediately discharge any employee who brings beer, whisky or other intoxicating liquors onto the property of the company.

The Bessemer Limestone Co., of Youngstown, Ohio, will start work at once on the addition 100x800 feet to manufacture brick. Contracts for the material have already been awarded.

At the annual meeting of the Kittanning Clay Products Co., held recently, the following officers were elected: C. E. Foster, president and general manager; F. E. Tyler, vice president; G. W. Foster, treasurer and assistant general manager, and F. E. Tyler, Jr., secretary.

The Savage Fire Brick Co., which is owned by capitalists of Johnstown, Pa., will shortly rebuild its plant at Meyersdale, Pa., which was burned lately.

H. H. Smith & Co. will build a new sewer pipe factory at Port Homer, near Wellsville, Ohio. Coal and clay shafts are now being sunk.

The new plant of the Cambria Clay Products Co., being erected at Eifort near Portsmouth, Ohio, is nearly completed. It will manufacture sewer pipe and tiling and will employ 100 men.

The American Sewer Pipe Co. has resumed operations at its factory No. 18 at Uhrichsville, Ohio, which has been idle for several months. The Diamond plant of the company at the same place will also resume operations shortly.

The Dunn Wire Cut Lug Brick Co., at Conneaut, Ohio, has elected the following officers: A. W. Pelton, president; R. F. Lininger, vice president; G. M. Whitney, treasurer; Blanche Kinner, secretary and F. B. Dunn, general manager.

The Freeport Clay Products Co., which is located at Freeport, Butler county, Pa., has elected these directors: T. O. Jones, Jennings De Witt; J. N. Oppenheimer, A. L. Chapman, J. A. Gravatt and A. J. Fulton, Tarentum; Francis Laube and T. C. Hill, of Freeport, and John E. Marwood.

A new brick plant is to be built shortly on the Samuel Patten farm near Mosgrove, Armstrong county, Pa. John Rebolt is one of those interested.

The Nicholson Clay Products Co., capital \$100,000, has been incorporated at Cambridge, Ohio, by the following: Andrew W. Nicholson, J. D. Milton and E. M. C. Scott.

John Woodward, Jr., is building a large kiln on the farm of Judge J. C. Work near Juniata, Pa.

The Columbia Tile Co. has started work on its new plant in the first ward of Grafton, W. Va.

The Royalton Shale Brick Co., after one of the longest suspensions in its history, has resumed operations near Middletown, Pa. It employs 40 men and has five kilns running.

The Lock Haven Brick & Tile Company has resumed operations at the Castanea plant near Lock Haven, Pa. Following are the officers of the company: C. H. Long, of Mill Hall, is president; F. C. Lucas, of this city, is secretary and treasurer of the company, and Harry Bartholomew will be superintendent of the plant.

Joseph McCarty is installing a \$5,000 hydraulic reconstructing plant at his brick works, Lenker avenue, Sunbury, Pa.

A Pittsburgh syndicate, headed by C. P. Lawton, is negotiating for the purchase of the plant of the Independent Steel Co., of America, at Huntington, W. Va., and wants to convert it into a factory for turning out glass brick.

The big vitrified brick plant at Dillsburg, Pa., in the upper portion of York county, was recently sold to Charles S. Asper, of Adams county, for a nominal consideration of \$5,010, by D. W. Beitzel, cashier of the Dillsburg Bank. The plant originally cost \$165,000.

### Salt Glazed Sanitary Brick.

It is really remarkable to notice the rapidly growing demand from all parts of the country for an impervious, smooth faced, sanitary brick, and in this respect the beautiful vitrified, salt glazed brick ("Athena" brand) of The Hocking Valley Fire Clay Co., of Nelsonville, Ohio, seems to meet the exacting requirements of the architects and builders.

The product is made in light, medium and dark glazes. It is uniform in size and shade. A glazed encaustic paving tile, size 5 inches by 10 inches by 2 1/4 inches and a beautiful hand rock-faced glazed building brick are made in dark brown shades only.

The products of this company find wide markets in the entire United States, east of the Mississippi, and in Canada east of Winnipeg. Many well arranged shape brick are made for neat designs, and good stocks of each in the different shades are carried at all times for prompt shipments.

The representatives of this company are furnishing their brick for both interior and exterior uses in some of the largest and most important school houses and power plants of the country. In fact, for all classes of work where sanitary conditions are desired, the practice of using glazed brick for exterior facing is growing rapidly. This company makes special window sill and chalk trough brick for school house work.

Their shipping facilities are unexcelled and large stocks of manufactured products insure prompt shipments of all orders.

Just recently the entire works of the company have been remodeled and enlarged and capacity almost doubled. In addition, the quality of product has been very much improved. The most of the machinery is now driven by alternating current induction motors, and a complete vacuum pump system of steam drying has been installed by The Illinois Engineering Co., of Chicago, Ill.

All dealers, architects and large construction companies will do well to get in touch with this concern, as there certainly is a great future for their products.

### INTRODUCE BRICK AMENDMENT.

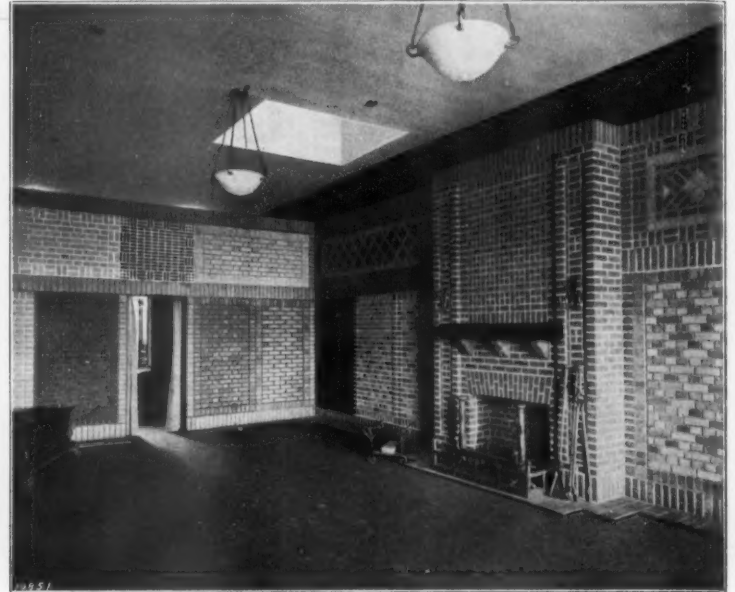
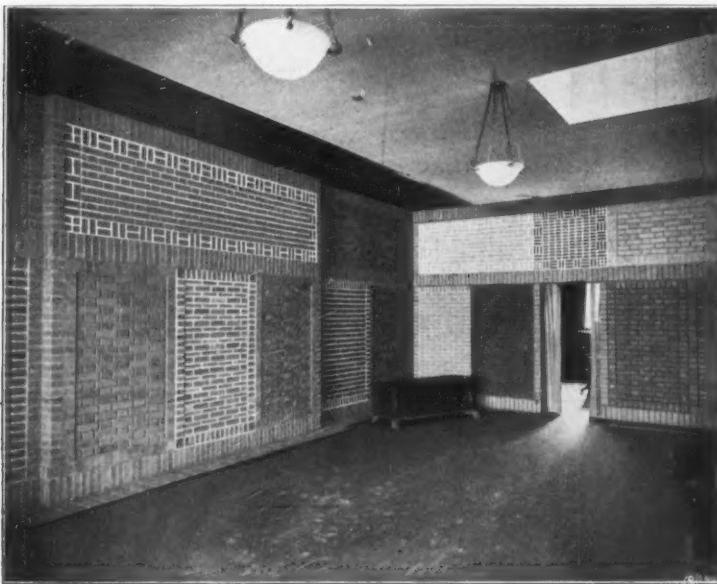
Senator Whitney and Assemblyman Seelye have introduced in the Senate and Assembly an amendment to the State Housing Law for second class cities which, although it does not effect this county, is of great importance to our large brick manufacturing interest. The proposed amendment provides for the insertion of a new section to be known as Section 63 which provides for the construction of second class or semi-fire-proof dwellings in which the external and party walls are of brick, stone, iron, concrete or other equally fire-proof material and in which wood may be used for window and door casings, sash, doors, floors, partitions and roof frame work. Such buildings are to be limited as to size and height and the details of construction are set forth in detail.

### EXPECT BANNER YEAR.

"We have a large stock of manufactured goods on hand and are booking many orders for early spring delivery," says C. E. Jewett, secretary of the Hocking Valley Fire Clay Co., Nelsonville, Ohio, in explaining that he expects 1914 to be the company's banner year.

### BANFIELD PLANT NOW IN OPERATION.

The Banfield Clay Co., Irontdale, Ohio, announce their new plant was placed in full operation March 1. They are ably equipped to manufacture building block, fireproofing, flue lining, mill brick, wire cut paving brick and repressed paving block, with a daily capacity of 200 tons of clay products.



ARTISTIC EXHIBIT OF FACING BRICK, SEPARATED FROM MAIN BUSINESS OFFICE, MAINTAINED TO RENDER ADDITIONAL SERVICE TO CUSTOMERS—ABOVE VIEWS SHOW BOTH SIDE WALLS AND END WALL OF EXHIBIT DISPLAY.

## Face Brick Exhibit With a Purpose

Modern Enterprise in Retailing of Facing Brick Provides Buyers with Every Convenience and Marks a New Element in the Rendering of Service.

The serving of customers to the best advantage is, in a measure, responsible for the final passing of that day when business was looked down upon as inferior to the professions and fine arts. Skill in business is no longer regarded as one man's ability over another to devise cute tricks to cheat people—to get as much as possible and give as little as possible—and we are all finding out the actual extent of skill exhibited and satisfaction and additional profit derived, where a building material business marks its progressiveness by its service to customers with the "goods" exhibited as significant of the real purpose in view.

"Service to the consumer" and its advantages in the building material business has many examples of efficiency in exhibits of various kinds of face and common brick in connection with the office facilities of progressive retailers. These examples of service denote the exhibit of brick as an indispensable means of fulfilling a purpose.

The S. S. Kimbell Brick Co., of Chicago, have instituted an innovation in brick exhibits with the establishment of a branch of their main exhibit, conducted as a part of their office facilities in the Chamber of Commerce building, at 738 South Michigan Boulevard. The purpose of the branch exhibit is mainly to render additional service to their customers with a location in a part of the city which is convenient to the offices of the leading architects, and where these architects and their clients may meet in a congenial atmosphere for the purpose of selecting such goods as will best fill their requirements. This exhibit is artistically arranged and embodies various varieties of face brick, the effectiveness of both color and general utility of the product being comprehensively arranged.

It was with a view to an extension of service that this branch exhibit was established in Michigan boulevard by the Kimbell Co., and is one of the markers of progress in the retailing of brick. Many of the clients of Chicago architects are ladies who shop in the vicinity of this exhibit and its convenience is an appreciable element in the conduct of a modern business.

The accompanying illustrations show the arrange-

ment of this branch exhibit of the Kimbell Co., and the Colonnade Building in which it is located. The two views of the exhibit show precisely the arrangement of display in a room large enough to afford convenience and comfort to visitors. The effect is beautiful and harmonious—every detail is a measure of encouragement for the use of face brick to secure the most satisfactory result in any type of building.

H. L. Matz, vice-president of the Kimbell Co., speaking of the idea of an exhibit separated from the company's business office, said: "It is our purpose to provide as much service and convenience to our customers as possible. For that reason on January 1st we opened the branch exhibit in Michigan Boulevard, and while the formal announcement of the exhibit has not been issued there have been many indications of the benefits to be derived from this source. Our facilities for handling a certain

class of customers have been materially increased.

"Many buyers of face brick, who found it inconvenient to visit our exhibit and offices in a more congested part of the city, are realizing our efforts to make the selection of face brick for a new building as easy a matter as the selection of a new suit or any other article in the shopping district."

Merchandising in the face brick department of building materials is, therefore, not unlike other modern business enterprise that by careful application of the new ideas for rendering 100 per cent efficient service to prospective buyers and thus eliminated the old idea that the conduct of business was inferior to the professions and arts. And now, in the retailing of face brick and other building materials, progress means best possible service to customers. Examples of this fact are numerous, and building material interests are profiting by these examples and their consequent advantages.



COLONADE BUILDING, CHICAGO, CONTAINING FACING BRICK EXHIBIT FOR CUSTOMERS' CONVENIENCE.



# GYPSUM PRODUCTS

## Indorsement for Plastering Bill.

### Buchanan Measure Would Regulate Inspecting and Furnishing of Interiors.

The O'Leary subcommittee of the House District Committee ordered a favorable report on the Buchanan bill to regulate plastering, a few days ago. Inspection of all plastering work by the inspector of building construction in the District is provided for in the measure and the commissioners are authorized to enact the necessary ordinances.

The bill provides that all plastering in dwellings, tenements, apartments, hospitals, schools and other buildings in the District, when on lath, shall be known as three-coat work, namely, scratch coat, brown coat and finish.

The bill provides, under the heading "key space," that "all ceiling, stud partitions and furred walls \* \* \* where plastered with lime on wood lath, shall have not less than three-eighths inch space between the laths. All grounds and laths shall not be less than seven-eighths inch from the stud."

"The first coat shall be of first quality, to be scratched thoroughly to make a key for the second coat and shall be thoroughly dry or set before applying second coat."

"All browning must be true, with no unevenness or irregularity of surface," says the bill with reference to the "second coat." In regard to finishing the bill requires "that when white mortar is used it shall be laid on regular and troweled to a smooth surface, showing neither deficiencies nor brush marks."

"And any other coat shall be laid on regular and brought to an even surface, without deficiencies or brush marks."

"All cornices or coves shall be run true and smooth."

"When patent plasters are used, if on wood lath, they shall not be less than one-quarter inch key space. First coat shall be thoroughly scratched to make key to retain second coat, and shall be allowed to set before second coat is applied."

It is provided that the new plastering regulations shall become effective within thirty days after the passage of the bill.

## Gypsum Production Smashes Records.

The production of gypsum in 1912 was the greatest in the history of the industry, according to the United States Geological Survey, the amount of gypsum consumed being 2,500,757 short tons. The value of gypsum products was \$6,563,908, an increase of \$101,873 over 1911. In 1880 only 90,000 tons of gypsum were produced; in 1900 the production was 590,000 tons.

The bulk of the gypsum produced in the United States is manufactured by grinding and partial or complete calcination into the various plasters, such as plaster of paris, molding and casting plaster, stucco, cement plaster, floor plaster and hard finish plaster. Refined grades of plaster are used in dental work, for making pottery molds, stereotype molds, molds for rubber stamps and as an ingredient in various patent cements.

A steadily increasing quantity is being used in the raw state as a retarder in Portland cement. Considerable quantities are ground without burning and used as land plaster, smaller quantities are used in the manufacture of paint, wall tints,

crayons, paper, imitation meerschaut and ivory and as an adulterant. The pure white massive form, known as alabaster, is much used by sculptors for interior ornamentation—less, however, in this country than abroad.

## GYPSUM CASE UP AGAIN.

The final argument of the case of the Pacific Coast Gypsum company of Tacoma et al against the Oregon-Washington Railroad & Navigation company has been set before the interstate commerce commission in Washington, D. C., for March 13.

The case resulted from a protest entered by the Gypsum company and several other companies of Puget Sound which handle building supplies against the rate put in effect by the O-W. on lime and plaster from Lime and Gypsum, Ore.

The Puget Sound companies complain that the rate from the Oregon points to Tacoma is higher than that from Tacoma in the opposite direction, giving the Oregon shippers an unfair entry into the local market. They ask that the rate either be raised or that a corresponding low rate be made on shipments south into Oregon.

## U. S. G. STRONG ON CURB.

United States Gypsum preferred stock is strong in the present curb market. The company is reported to have shown a profit in January, which, owing to the seasonal decrease in building operations, is generally a losing month.

The report of the United States Gypsum Company for 1913 shows the directors were justified in increasing the preferred dividend from 5 to 6 per cent. The net profits available for dividends in the year ended December 31 last were \$473,000, an increase of \$43,585 over the preceding twelve months.

## AMERICAN GYPSUM ELECTION.

The American Gypsum Company, Port Clinton, Ohio, held its annual meeting of stockholders a few days ago, when the following officers and directors were elected: President, J. H. McCrady, Braddock, Pa.; vice-president, F. J. Griswold, Port Clinton; secretary and treasurer, J. D. Davis, Cleveland; Ed. McCrady, Braddock, Pa.; Charles Miller, Cleveland; E. D. Gilleland, Wheeling, W. Va., directors. E. J. Griswold was reappointed general manager for the coming year, and Arthur Black general sales manager. The outlook for this year is one of the most promising in the history of the plaster business.

At the meeting of the officers of the Paragon Plaster Company, Syracuse, N. Y., held a few days ago, it was decided to rebuild the brick plant which was lately destroyed by fire. It will cost \$10,000. The following were elected: President, Jacob Amos; vice-president, A. E. Nettleton; secretary-treasurer and manager, W. K. Squier.

The firm of Maddox & Hutchison has been organized in Nashville, Tenn., by Frank G. Maddox, of the real estate firm of G. A. Maddox & Co., and George T. Hutchison, formerly with the Capital City Construction Co., and will engage in the plastering and concrete business. Mr. Maddox will retain his connection with the realty concern, and the new firm will have quarters with it at 241 Fourth avenue, North.

## Trade Mark on Exhibition.

### Wheeling Wall Plaster Co.'s Design on Display in New York Hall.

The Wheeling Wall Plaster Co., of Wheeling, W. Va., is a firm which is always on the lookout for the best ideas and progressive methods for carrying on its business.

As an example, the members of this company recently decided to have drawn a design to use as a trade mark. This trade mark was to be used on all stationery and packages of their product. After much thought and study an artistic design was secured and a number of handsome enameled signs have been made from this design. These are used on all of their trucks and wagons. Dealers in their territory are also using these signs on their wagons, trucks and warehouses. An enameled steel sign of this "Wheeling" trade mark was recently placed in the New York Exhibition Hall. It is being exhibited on account of its originality of design.

The design has been used in the advertisements of this concern appearing for the past few months in ROCK PRODUCTS and the DEALERS' BUILDING MATERIAL RECORD. It appears in this issue of ROCK PRODUCTS AND BUILDING MATERIALS. Not only has the Wheeling Co. received comments on the originality and beauty of this design, but the publishers of the above-mentioned papers have received comments, asking where the design was originated.

The Wheeling Wall Plaster Co. has reason to feel proud of this new trade mark. The work now before the officers and sales force of this company is to get dealers and users thoroughly acquainted with it and to get them to specify the product it advertises. R. W. Marshall, president, and his assistants are equal to the occasion. They declared "Wheeling" wall plaster is now well known to the trade, but hope to keep increasing its sale.

## PLASTER NOTES FROM SAN FRANCISCO.

San Francisco, Cal., March 3.—A complete adjustment of the recent San Francisco plasterers' strike was effected a few days ago, the new union being consolidated with the old and both being admitted into the Building Trades Council and all interrupted work has been resumed.

J. P. Woods has taken the contract for clay and plaster models, casting ornamental plaster and staff work for the Fine Arts building of the Exposition, at \$72,000. Staff work on the Tower of Jewels has been started and other contracts have been let as follows: For the Court of Honor, to F. Rolandi, at \$309,150; Courts of Flowers and Palms, to Strehlow, Freese & Peterson, at \$184,000.

## MAY BUILD GYPSUM MILL.

The Centerville Gypsum Company, Centerville, Iowa, is preparing to get \$40,000 subscribed to finance the building of a mill and provide working capital to start the industry. The shaft is complete with a 13 foot deposit of a little over 500 feet. Owing to water difficulties in sinking it a total of \$25,000 was spent in prospecting and in sinking the shaft. The company is to be capitalized at \$65,000. A mill producing 100 tons of plaster a day is to be built.

The foundation of the new concrete and steel plaster mill of the American Cement Plaster Company at Fort Dodge, Iowa, is in and some of the machinery has been placed.

# Sand and Gravel

## Pittsburgh Sand and Gravel News.

### Cold Weather and Ice in Rivers Temporarily Tie Up Operations—Market Opening Up in Good Shape.

Pittsburgh, Pa., March 5, 1914.—The sand companies of Pittsburgh have been very badly tied up lately by the cold weather and the ice in the three rivers. All of them are preparing for a record-breaking flood this month, for if the deep snows go off with a rain and a quick thaw there is no doubt but that immense damage will be done. The rivers are all full of ice and in many places this has already banked up from ten to twenty feet high. As a result all sand companies are using the utmost precautions to protect their plants and boats. The outlook for the sand business here this spring is excellent. Very little has been done since January 1st, except on road shipments. The market is opening up now and, except for the fierce competition, it looks as if sand firms would have a very good trade this year.

The Tidioute Silica Sand Co., at Tidioute, Pa., up the Alleghany river, is getting into shape to operate its big Torpedo sand plant at full capacity.

The old sand and gravel banks at Natrona, Pa., which still contain about 200 perches of sand and gravel, have been sold to the Pennsylvania Slate Manufacturing Co.

The plant of the Sonnhalter Sand & Stone Co., near Massillon, Ohio, was burned recently with a loss of \$50,000, partly covered by insurance.

A new company which will manufacture ganister rock, sandstone, etc., has been organized at Altoona, Pa., by the following: W. Lovall Baldrige, Mary V. Baldrige, Laura S. Baldrige, Emma Baldrige McKinley, Jean Baldrige Sholly, Eleanor Baldrige, Hanna and Charles Malcolm Baldrige, E. R. Baldrige & Co.

Sand shippers all over western Pennsylvania have put in earnest protests to the Interstate Commerce Commission against the proposed 5 per cent increase in freight rates which is being asked by the 54 railroads east of the Mississippi river.

The E. R. Baldrige Sand & Rock Co. has been organized with a capital stock of \$10,500, under a Pennsylvania charter, to operate near Hollidaysburg, Pa.

### Dull's Improved Tubular Washer for Sand and Gravel.

Preparation of concrete materials "on the job" often offers such opportunities for greater convenience and important economies as to justify the constructor or contractor in having a thoroughly practical and effective washer as a part of his equipment. Wherever the sand and gravel user has available a supply of bank materials suited to his work, the use of a washer of proper size and capacity for his requirements will place him in a position to complete independence, giving him the best obtainable materials without necessity for purchasing from distant sand and gravel washeries. He thus saves shipping costs, unloading expense and the producer's profit, besides avoiding losses and annoyance due to irregularities in receipts of carloads of purchased materials. The owner of a good washer can suit his supply of materials exactly to his needs, preparing them just as carefully as he pleases and having the entire work directly under his control.

On concrete construction work, the local washer is particularly valuable and is easily operated as a part of the equipment for preparing and handling the materials.

For small consumers of sand and gravel it is equally advantageous, also for block manufacturers, sidewalk and paving layers, building constructors, concrete road contractors, etc.

Sand and gravel producers whose bank materials are unusually difficult to wash, find the tubular washer a great help as a preliminary scrubber. For work of this character the washer is built in large sizes, for correspondingly large capacities.

#### Construction and Operation.

The operative principle in the Dull Improved Tubular Washer is that of tumbling the materials about in a bath of water, as they progress through the length of the cylinder. By repeated lifting and dropping onto intermediate shelves and into the water the lumps of materials are broken up, all sticking foreign matter is scoured off and the pebbles and sand delivered clean and bright at the discharge end.

Lengthwise of the inside of the cylinder are lifting blades set in angular position. As the cylinder rotates, these blades carry up materials and water, discharging them onto a double series of stationary angle-shaped shelves.

The shelves retain certain quantities of the materials, to assist the scouring action on the falling materials. The presence of the retained materials also acts to prevent wear of the shelves themselves.

To make clear the action, the fall of material from the lifting plates direct to the lower shelves is not shown. The material striking the higher shelves, falls next to the lower ones and thence drops into the water below.

The quantity of water raised with the materials by the lifting blades can be increased or decreased by varying the speed of rotation of the cylinder.

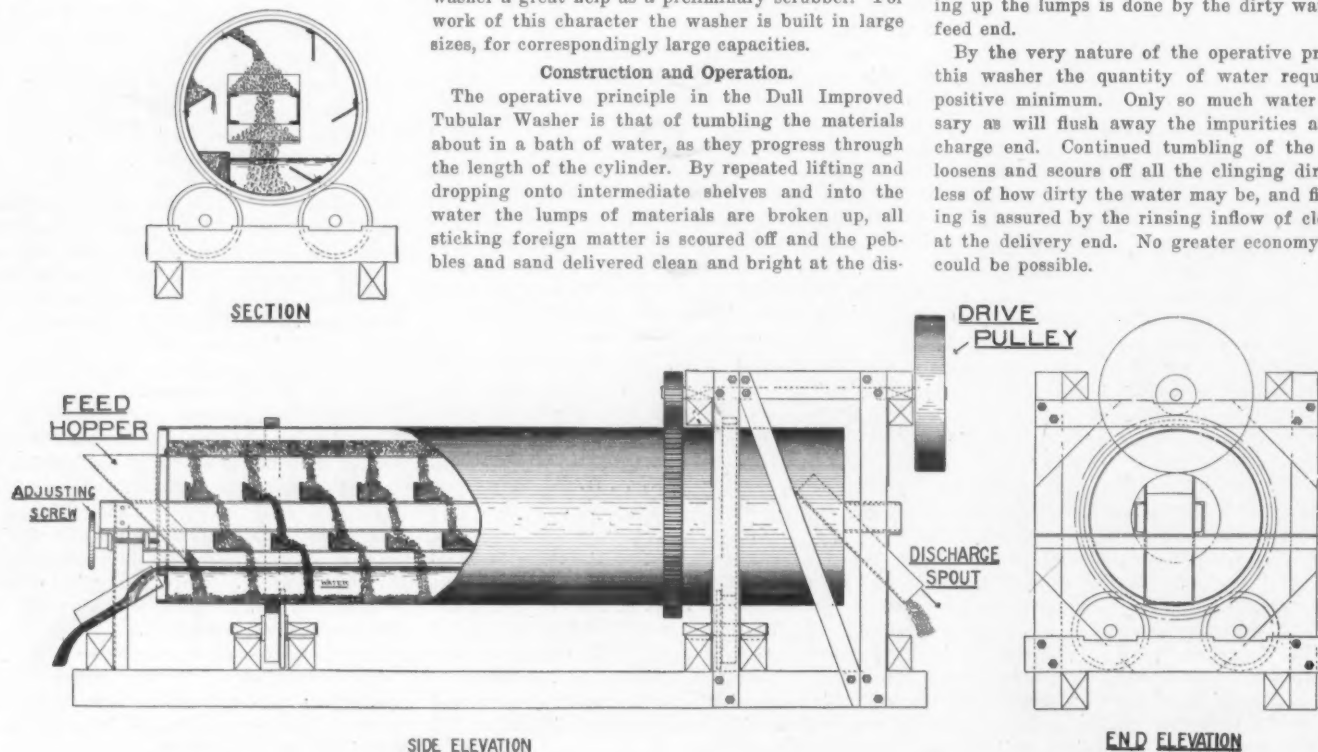
The materials progress through the length of the cylinder by the forward movement caused by the arrangement of the shelves. Regulation of the rate of forward progress—and therefore the time required for passage through—is effected by movement of the lower series of shelves. These are movable lengthwise of the cylinder, by means of the adjusting screw shown in the drawing. The lower shelves may be set directly beneath the upper ones, and for this position the progress of the materials is slowest. When set as far forward as will permit them just to catch the fall from the upper shelves, the rate of progress is fastest. With this easy adjustment for the rate of progress, the washer may be made to suit exactly the peculiar requirements of any materials, or any variation in the materials.

Difficult materials may be washed very slowly; easier materials may progress rapidly through.

#### Minimum Water Consumption.

The direction of flow of the water is opposite to that of the materials, the water entering at the discharge end (on the right in the drawing) and flowing out at the feed end. In this way the washed materials as they tail out are rinsed clean by the fresh water, and the primary work of breaking up the lumps is done by the dirty water at the feed end.

By the very nature of the operative principle in this washer the quantity of water required is a positive minimum. Only so much water is necessary as will flush away the impurities at the discharge end. Continued tumbling of the materials loosens and scours off all the clinging dirt, regardless of how dirty the water may be, and final cleaning is assured by the rinsing inflow of clean water at the delivery end. No greater economy of water could be possible.





**Screens for Size Separation.**

Size separation may be provided for in very simple manner by attachment of a conical screen extension at the delivery end of the washing cylinder.

For independent screening—and better separation if several sizes are wanted—the discharge from the washer may be passed to any suitable set of independent screens.

**A Size for Every Service.**

The wide range of application for these washers calls for their construction in several sizes. They are now built regularly in diameters from 30 to 60 inches, with lengths of 8 to 20 feet. Special proportions can be arranged to meet any peculiar conditions to which a regular size may not be suited.

The nature of the work calls for very highest grade of construction, and for this reason the Dull Tubular Washer is not built cheaply. It is made as economically as good design will permit, but there is no slighting of important features to cut corners off the cost.

The cylinder is made of heavy steel, encircled by steel tires which run on four flanged wheels with chilled treads. Driving gears are extra heavy and are so placed as to avoid contact with the materials. The drawing shows straight drive; angle drive may be furnished at no extra cost.

Washers are regularly furnished complete with supporting frames of wood, substantially as per drawing. If purchaser desires to construct his own supporting structure, drawings for the same will be furnished and the washer shipped without the frame.

**Best Kind of a Guarantee.**

Your guarantee of good service lies in the pre-eminence of this company in design, construction and equipment of plants of highest efficiency for sand and gravel washing; the reputation of its expert engineers in analysis of conditions and application of correct methods for treatment; its extensive mechanical tests of all devices before placing them on the market; its twenty years of practical engineering and manufacturing experience; its record of success in the numerous plants that have been built.

You are safe in depending upon such a concern to give you just what you want, to do just what you want done, just as you want it done.

**THE IMMORTAL REQUIREMENT.**

We are in receipt of a "nifty" sign of progressiveness from our old friends, the Clearfield Quarry Co., of Clearfield, Pa., containing on one side a poem on sand which is given below. The other side is devoted to a description of the product and shipping facilities of this company. The sand produced in Clearfield County, Pa., is of the highest grade and is used for friction, glass, steel casting, concrete, etc. They have lately installed new and up-to-date machinery which has greatly increased their daily capacity.

**Sand.**

What we need in life is Sand, just Sand;

Not the mythical sand that the Sandman brought,  
Not the sands of time that all change has wrought,  
But Sand, just Sand!

Just the Sand that lasts, though the arrows fly,

That stiffens our spines when the storm beats high,  
That can make us laugh when the tears are nigh—  
This Sand, just Sand!

We write to ask if you need Sand;

Not the mythical sand that the Sandman brought,  
Not the sands of time that all change has wrought,  
Not the sand that we need when the battle is fought,

But Sand, **COMMERCIAL SAND!**

Our Clearfield Brand will stand every test;  
It is clean, sharp sand—the very best.

The Sandman.

**SAN FRANCISCO SAND AND GRAVEL NOTES.**

San Francisco, Calif., March 5.—Mr. Kiefer, of the E. B. & A. L. Stone Co., says: "Business is beginning to open up here and the San Francisco market is now fairly active. The outlook is fine, and we are lined up for the business better than ever, having four quarries, four exclusive sand plants and two gravel plants. Our Coyote and Campbell pits, which were closed during the January storm, are now opening for the season." This company's sand unloading outfit at the bunkers, Eleventh and Harrison streets, this city, consisting of a system of drag scrapers on a link belt, is now in satisfactory operation.

O. T. Larson has purchased the sand and gravel plant of Zolph Bros., near Lebanon, Ore., and will continue the business as the Lebanon Sand & Gravel Works. The plant will be remodeled and enlarged.

The E. R. Baldrige Co., of Hollidaysburg, Pa., was recently incorporated under the laws of Pennsylvania with a capital of \$10,500. The new company will engage in the sand and rock quarrying and dealing business, with headquarters at Hollidaysburg.

Articles of incorporation of the Waterloo Sand and Gravel Company were filed recently. The capital stock is placed at \$20,000 and the business of the corporation is to operate sand pits, dredging and stone-crushing plants, etc. The corporation commenced business December 1. The officers are: President, James J. Trickey; vice-president, J. S. Leeper; secretary and treasurer, L. M. Taylor.

The Eureka Gravel Company, a new corporation at Newton, Miss., is composed of G. H. Banks, D. L. Ragland, J. C. McClinton, G. W. Walton, Dr. G. H. McNeill, J. R. Byrd, of Newton. The gravel pit is located in Jasper county, about five miles east of Montrose. State Geologist Lowe recently visited this pit to investigate, and reports that it is as fine a grade as can be found anywhere in Mississippi. Dr. Lowe drilled 28 feet and found no bottom to this vast vein of gravel. He states that there is enough gravel to last for years

to come. This company expects to begin operations at an early date.

**Beautiful Residence of Stucco.**

When Architect Harry Wachter, of Toledo, Ohio, was commissioned by E. S. Smith, of that city to design a residence to be built in a section of Toledo where the trees were tall and beautiful and the natural surroundings demanded a structure of beauty, it was decided that the house should be built with stucco finish.

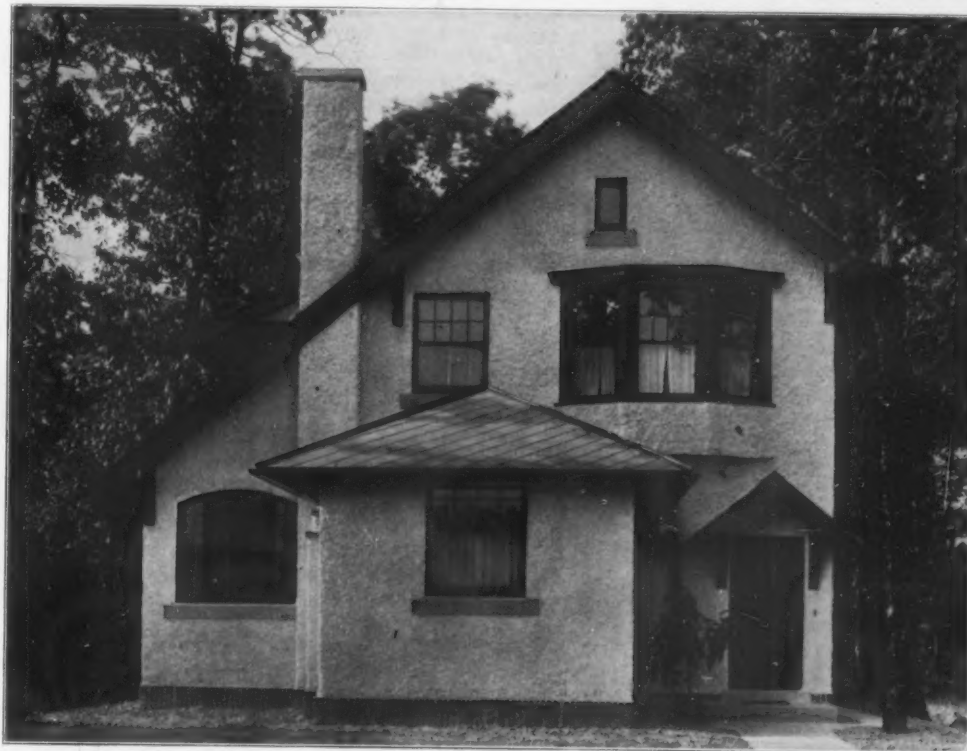
The accompanying illustration shows the finished building and the manner in which it harmonizes perfectly with the natural surroundings. Stucco is a material which will greatly assist architects and builders in beautifying homes in instances where the owner demands originality and beauty.

Mr. Smith's home is constructed of hollow tile and stuccoed with "Polar Bear Alca" stucco. This stucco is composed of a mixture of a high magnesium white lime and calcium aluminate. The action of the calcium aluminate in this stucco is to give it a fairly quick set and to embody hydraulic properties. This element causes the stucco to set in five or six hours. The magnesium lime is to give it a pure white even color and permanence of construction, with waterproof features.

In the residence of Mr. Smith a pure white color was obtained and the stone dash method was used in applying the stucco.

"Alca" stucco is distributed by the Woodville Lime and Cement Co., Toledo, Ohio; Charles Warner Co., Wilmington, Del.; Security Lime & Cement Co., Pittsburgh, Pa.; Glencoe Lime Co., St. Louis, Mo., and International Lime Co., Seattle, Wash.

Camden, Tenn., Feb. 21.—A trade of considerable importance was the buying of the Memphis Steam & Gravel Co., by the West Tennessee Gravel Company. The two companies have been doing business here for the past five years selling gravel all over the South and especially in West Tennessee. Mayor R. L. Stockard, present manager of the West Tennessee Gravel Company, will be the manager of the consolidated company. The new concern will take over all equipment and will handle the former business contracted.



RESIDENCE OF E. S. SMITH, TOLEDO, OHIO.

# With the Quarries

## An Interesting Letter.

We are in receipt of an interesting letter from a prominent crushed stone producer in Ohio, as follows:

"One of the absurd things which stone producers are doing is getting out into the field and going after contracts with the full determination of landing the contracts to furnish stone, regardless of their ability to fill the order, also with a price figured to be just below the other fellow. Such business tactics destroy confidence and is not for the best interests of our individual plants; besides, we are placing our business in jeopardy. Our several stockholders must get returns on their investment or they will become disgusted with the stone business and the stock is worth nothing when only paying operating expenses and a few salaried officers.

"I feel good over landing an order with a differential against me and feel that the goods I represent are worth while. If the stone man is not representing a stone that will sell on its good qualities, and command a little more money than the other fellow's, for the reason of its good or superior quality, better get out of the business and not feel the under dog; get into some business which will make you feel the equal of your fellow competitor and give you legitimate returns on your investment. Giving goods away is not a mark of salesmanship or good business; it means disaster in outcome.

"None of the supply men meet you with the sign out of landing your trade or orders because of low prices, but on the good qualities of their machinery, and they will quickly tell you that their goods are worth the money, many times several dollars higher than the other fellow's, and if you are determined to have something cheap they will tell you that they will have to forget your order and turn you over to the other fellow, because you are not convinced of the truth of their claim. Invariably we buy the best type of machine or we are fooled in our judgment.

"Now, boys and fellow stone men, get into the field with your sleeves rolled up and sell your goods because it is the best, for a little more money than you did last year, and let's make 1914 the banner year for good returns on investment, thereby restoring confidence. Grant that your fellow stone

producer needs some business and be fair with him; go to him and give him the glad hand; tell him you are going to be a man in business for one year at least and that you hope he will treat you likewise."

## Making the Truck Pay

By H. D. Pratt, Engineer, Link-Belt Company, Philadelphia, Pa.

The motor truck has come to stay. Its ability to carry bulk material long distances in quantities unheard of 10 years ago, and at a high rate of speed, makes it possible to materially reduce the cost of transporting large quantities of stone, coal, sand, gravel, etc. The speed of travel is high as compared with the horse-drawn vehicle. The unloading is automatic, the body being dumped by the mere turn of a lever by the truck operator. In many cases the truck is loaded from an overhead chute, but more often the material to be moved lies on the ground in storage piles, not only in regular storage yards, but in streets, roads and wherever most convenient to store. The loading of this material from ground storage piles becomes a different matter. The high cost of loading auto trucks with material carried on ground storage is one of the factors which have retarded the sale of trucks for this work.

The truck which is so quick and convenient for handling several tons at a load must necessarily be high to hold the load. Shoveling by hand means that the truck spend more than half its time waiting at the storage pile to be loaded, and between trucks the shoveling gang is idle. A good average day's work for a shoveler is 20 tons of gravel, less of stone, and slightly more of sand. Not only is the truck standing idle while being loaded, but the loading by hand costs 8 to 12 cents a ton. Here is a bad leak in what should be an up-to-date and efficient job of handling.

The portable wagon and truck loaders effectively stop this leak. The accompanying cut shows how. A bucket elevator is mounted on large wheels, and with power supplied by a motor or gasoline engine will load sand, gravel or coal at the rate of a ton per minute. The truck driver trims the truck with a shovel, and one, two or three men, depending on the nature of the material to be handled, trim and feed to the loader. This combination will load the truck at a cost of two and one-half to five cents per ton, the higher cost being that of handling crushed stone, with coal at the low end, and sand and gravel following in order. The saving of about six cents per ton thus effected is a large item in these days of close margins and competition, and marks the loader as a useful and necessary adjunct of the motor truck.

There is also a growing demand for a further combination of truck and loader, namely: a truck with loaded elevator mounted on the rear end of the



LINK-BELT PORTABLE WAGON LOADER.

body, arranged to lower into a storage pile when the truck is backed up to it, and also to raise clear of the ground when not in use. The elevator is supported independently of the dumping body, and is driven, through a clutch, by a connection to the truck transmission. This combination results in a truck which can be loaded by its driver with or without a helper in a few minutes, and does away entirely with the necessity for a loader-operator who is idle between trucks.

The loaders described above are made by the Link-Belt Company, Philadelphia and Chicago.

GUARANTEED FOR SAFETY

**BANNER**

**HYDRATE**

**LIME**

MANUFACTURED BY

**NATIONAL**

**MORTAR AND SUPPLY CO.**

PITTSBURGH, PA.

WORKS GIBSONBURG, OHIO.

IMPROVED SYSTEM

BEST QUALITY

Capacity Increased to Thirty-five Kilns of Most Improved Construction to Supply the World Famous

# BANNER HYDRATE LIME

PROMPT AND COURTEOUS ATTENTION GIVEN TO EVERY CUSTOMER, AND SHIPMENTS HANDLED WITH UTMOST DESPATCH.

Secure Your Supply of Banner Hydrate Lime Now While the Opportunity Is Open.

**NATIONAL MORTAR AND SUPPLY CO.**  
A. H. LAUMAN, President  
PITTSBURGH, PA.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



## Waterbound Macadam Treated with Lime.

(Experiment No. 30, from Station 59-00 to Station 63-00.)

The working out of practical road problems in Ohio is one of the principal features of modern quarry activities. Clifford A. Owens, of John D. Owens & Son Co., Owens, Ohio, sends us the following report with regard to the use of waterbound macadam road in which lime was used as a binder. The house of Owens has been manufacturing lime for more than 60 years and they have for that length of time been in the business of furnishing rock for roads and for contracting purposes. For several years this concern has been running an extensive hydrating mill and to Clifford A. Owens has been the responsibility for finding a sale for the output of the various branches of their extensive plant. Mr. Owens is a scientist of no mean attainment and has experimented in many lines which have made him one of the fellows that the industry must look up to. The official report, reproduced below, from the records of the State Highway Department will be of interest to the crushed rock men as well as the lime producers who are interested in the extension of the use of their product in connection with the great road-building movement which is sweeping the country:

"Columbus limestone was used for both coarse and fine aggregate in this section. The road was constructed in the same manner as the waterbound macadam section described in Experiment No. 28, up to the completion of the dry rolling and filling of the top course. At this point the stone was thoroughly saturated with water and then grouted with a very thin mixture of lime and water. The lime was hydrated lime furnished by the John D. Owens & Son Co., of Owens, Ohio, and is of the variety sold by the company for agricultural purposes under the name of Clover Leaf Brand. The company guarantees on this product 55 per cent CaO, 12 per cent to 14½ per cent as MgO, and a total oxide equivalent of 68 per cent. It was in the form of a dry powder and was shipped in paper sacks holding 50 pounds each. On the first 200 feet of this experiment, from Station 50-00 to Station 61-00, the lime-water mixture used was of the consistency of very thin cream and was applied with buckets, on the last 200 feet, from Station 61-00 to Station 63-00, the water was barely colored with the lime, and was applied from a sprinkling wagon. About 80 sacks of the lime were used on the first 200 feet, and on the last 200 feet about 20 sacks.

"The lime-water mixture, even where the percentage of lime was small, seemed to have the effect of causing the surface to grout much quicker than where water alone was used. Apparently the lime greatly reduces the percolation of the water through the screenings in the voids of the stone, and thus by holding the water near the surface of the stone causes the grout to form in front of the roller much quicker. It would be well to further investigate the effects of the lime-water mixture, as only a small quantity might add to the ease of producing a grout on the surface of the stone such that it would fully pay for itself even where it was not expected to secure any additional bond from its use."

The Marble Cliff Quarries Co., Columbus, Ohio, is the name of the new company organized by the merging of the Woodruff & Pausch Stone Co., the Marble Cliff Stone Co. and the Casparis Stone Co. The new company has paid in capital amounting to \$350,000 and it controls one of the largest stone outputs in this section of the country. The officers are: John W. Kauffman, president; Charles Woodruff, vice-president; W. D. Crawford, of Steubenville, secretary; Robert Pausch, treasurer, and W. H. Hoagland, general manager.

## New England Meeting.

(Continued from page 17.)

rather, blaze the way to a large and useful federation of dealers throughout the country.

The federation plans involve many details, such as eventually turning the National entirely into a delegate body—one delegate to be appointed from each State or district for every five members in the State or district organization—one member on the National Board of Directors to be selected by the Executive Committee of the State or district association, and so forth.

A considerable additional sum was raised in Chicago, by popular subscription, to assist the National Board of Directors to carry through their plans of stimulating the dealers throughout our country. We need more dealers to establish their city associations to handle the local questions; we need many more dealers in our New England Association to build it into a body fully representative of all the towns in this important district east of New York State.

We need to support the National and we badly need the National's help. I, therefore, ask for favorable action on the federation plans as approved by our New England Executive Committee, together with suggestions and action to secure the necessary funds.

Mr. Johnston spoke on this subject, stating that the margin of profit on Portland cement should be increased to the dealer, believing the time had come when the dealer should be recognized as an important factor to the manufacturer in promoting the business in the local territory.

The method of having state or sectional associations of building material dealers was brought to the attention of the meeting by President Kelly, who said the advisability of such organizations was necessary to assist the National Association of Builders' Supply Dealers. The plan of such formation was for the local or state association to pay dues to the national association on the per capita basis.

J. Edward Fuller, vice-president and general manager of the Geo. A. Fuller Co., was called upon to read a paper giving his views as to the relation between the contractor and builder and the dealer.

Mr. Fuller's paper will be printed in full in the March 22 issue.

### Friday's Afternoon's Session.

The afternoon session was called to order at 3:00 o'clock. An amendment to the constitution was presented by Vice-President Frank H. Johnston, of Connecticut, to read that "the office of vice-president at large be created in addition to the various vice-presidents from the various states of New England."

Discussion followed on this subject. The vote showed that the amendment was carried.

Frank H. Johnston, chairman of the nomination committee, presented the list of officers for the year, as follows:

President, Charles M. Kelly, Providence, R. I.  
Vice-President at large, R. H. Whitney, Worcester, Mass.

Secretary, Frank H. Kingsly, of the Borden & Remington Co., Fall River, Mass.

Treasurer, S. H. Hammitt, of the Taunton Teaming Co., Taunton, Mass.

Vice-Presidents—Maine, S. M. Hursey, of the Winslow & Co., Portland, Me.; New Hampshire, E. D. Spencer, of the Spencer Hardware Co., Keene, N. H.; Vermont, F. E. Kimball, of the Spaulding-Kimball Co., Burlington, Vt.; Massachusetts, Frank Howard, of the Frank Howard Co., Pittsfield, Mass.; Rhode Island, E. D. Allen, of the Manchester & Hudson Co., Providence, R. I.; Connecticut, Frank H. Johnston, of the City Coal & Wood Co., New Britain, Conn.

These officers constitute the executive committee,

and this committee will decide later in the year when and where the next convention will be held.

Before closing the convention Geo. D. Elwell, president of the New York State Builders' Supply Association, made remarks in connection regarding the attention the manufacturers of Portland cement should give the dealer. Considering the money invested by the dealer, he said, the present margin is insufficient to encourage the sale of cement. He believed that the state organizations were becoming so complete that the manufacturers would soon recognize the local dealers' position and grant them an increased margin of profit.

Homer Godfrey, of the Silliman-Godfrey Co., of Bridgeport, Conn., spoke on the subject of the legitimate dealer in building material. Some of the manufacturers were inclined to establish contractors as dealers, as in the city of Bridgeport, where some contractors are acting as dealers, receiving the dealers' prices. He believed this should be corrected and, in his opinion, the recognized dealer should handle various brands of cement rather than confine himself to one brand. By working on this plan the manufacturers of all brands of cement can be taken care of and correct the evil.

B. L. Swett, manager of sales of the Lehigh Portland Cement Co., gave his views on the subject. He considered the dealer important to the manufacturer and thought that the dealer is entitled to a fair margin of profit and protection in his locality. The money invested by the dealer establishes his strength in the trade and he should be given preference in his local territory on sales. Mr. Swett thought this question would gradually be adjusted as time goes on.

President Kelly, who has been president of this organization since 1911, expressed his thanks to the members present, saying the meeting would adjourn with a feeling of encouragement for the future, and during the year 1914 great progress would be made in advancing the value of this association.

The local committee in charge of the arrangements consisted of R. C. Cleveland, H. M. Whitney, F. L. Powers, H. G. Fagen and are to be congratulated upon the fine programme arranged for the entertainment during the meeting.

### Notes of the Meeting.

That pleasant face of Dick Cleveland was greatly missed, but Dick with Mrs. Cleveland is enjoying London and Paris.

George Parry is a leader, always in the front. He can tango as well as he can sing.

Bert Swett was on hand with his usual pleasing smile, full of enthusiasm for the year.

The new treasurer, Mr. Hammitt, of Taunton, enjoys a pleasant time with the boys.

Messrs. Simpson, Sprague and Dawes did Waldo Bros. proud; three pleasant people to meet.

Windsor Cement Co., of Boston, and J. B. King Co., of New York, were represented by Joseph Seguire, Walter Ray and M. F. Ryan.

Frank H. Johnston is the life of a party, ever ready to push along a good thing.

Ralph Whitney was never last in carrying out successfully all details of his duty. Praise was heard from all sides.

Rockland & Rockport Lime Co. were represented by Ed Page and Ed Healy.

Ed Larned is always wide awake to the occasion. His presence is always bright for a good convention.

Charlie Tileston was on hand to represent the old Lehigh.

Albert Moyer and his able representative in New England was on hand to greet their friends.

Jim Stinson represented the Knickerbocker and was greeted from all of his old friends.

E. E. Sandry and E. S. Roach represented the Giant Portland Cement Co.

Charley Purington came all the way from Augusta, Me., to attend the meeting. The boys were

much pleased to greet him. Charlie says the horse racing on the ice in Augusta is good. He invited all to join him the first of May on a fishing trip. This shows Charley's great big heart.

The Atlas Portland Cement Co. had present two able representatives, Charley Brigham and George Drake.

#### Attendance.

Chas. M. Kelley, James C. Goff Co., Providence, Rhode Island.

Merrick L. Goff, James C. Goff Co., Providence, Rhode Island.

Harold L. Vale, Providence, R. I.

F. S. Congdon, Providence, R. I.

T. G. Bradshaw, Providence, R. I.

J. Olney, Providence, R. I.

Edwin D. Allen, Manchester & Hudson, Providence, R. I.

Walter H. Manchester, Manchester & Hudson, Providence, R. I.

H. R. Horton, Providence, R. I.

Thomas W. Early, Thos. W. Early & Co., Providence, R. I.

R. W. Whitney, B. F. Marsh Co., Worcester, Mass.

F. L. Morton, B. F. Marsh Co., Worcester, Mass.

M. R. Richardson, B. F. Marsh Co., Worcester, Massachusetts.

B. F. Marsh, B. F. Marsh Co., Worcester, Mass.

H. G. Fager, Smith-Greene Co., Worcester, Mass.

J. R. Chamberlin, Smith-Greene Co., Worcester, Massachusetts.

C. R. Kesseli, Smith-Greene Co., Worcester, Mass.

F. L. Powers, F. E. Powers Co., Worcester, Mass.

H. G. Powers, F. E. Powers Co., Worcester, Mass.

O. M. Wig, F. E. Powers Co., Worcester, Mass.

G. O. Pengilly, F. E. Powers Co., Worcester, Mass.

R. W. Cook, F. E. Powers Co., Worcester, Mass.

W. H. Mailes, F. E. Powers Co., Worcester, Mass.

H. H. Hazeltine, Sand, Lime & Brick Co., Worcester, Mass.

J. W. Hahne, Sand, Lime & Brick Co., Worcester, Massachusetts.

W. F. Van Norman, Worcester, Mass.

Geo. F. Mulcahy, Worcester, Mass.

I. L. Linsley, Worcester Hardware Co., Worcester, Mass.

E. S. Strout, Worcester, Mass.

Frank H. Johnston, City Coal Co., New Britain, Connecticut.

S. W. Hursey, Portland Stone Ware Co., Portland, Me.

F. W. Clark, Portland Stone Ware Co., Boston, Massachusetts.

Geo. D. Elwell, president New York State Builders' Supply Association, Albany, N. Y.

Charles Warner, Charles Warner Co., Wilmington, Del.

H. E. Putnam, Hartford, Conn.

D. C. Lisbardsen, Mansfield Lumber Co., Mansfield, Mass.

C. E. Purington, Purington Bros., Augusta, Me.

H. S. Simpson, Waldo Brothers, Boston, Mass.

W. H. Sprague, Waldo Brothers, Waterville, Me.

B. C. Dawes, Waldo Brothers, Boston, Mass.

Walter S. Ray, Windsor Cement Co., Boston, Massachusetts.

M. F. Ryan, Windsor Cement Co., Boston, Mass.

Joseph C. Segguine, J. B. King Co., New York City.

H. H. Payne, Olney & Payne Bros., Inc., Pawtucket, R. I.

E. A. Wilson, E. A. Wilson & Co., Lowell, Mass.

Laforest Beals, E. A. Wilson & Co., Lowell, Mass.

Arthur A. O. O'Mahony, Estate of M. O'Mahony, Lawrence, Mass.

Geo. A. Parry, Parry Brick Co., Boston, Mass.

C. A. Palmer, Eastern Clay Products Co., Boston, Massachusetts.

C. W. Taylor, Eastern Clay Products Co., Boston, Massachusetts.

H. L. Aiken, Eastern Clay Products Co., Boston, Massachusetts.

S. C. Cottrell, J. T. Cottrell Co., Pawtucket, R. I.

W. I. Small, J. T. Cottrell Co., Pawtucket, R. I.

E. H. Palmer, Stamford, Conn.

G. C. Winter, Southbridge, Mass.

Geo. A. Dustin, Dexter, Me.

Frank H. Kingsley, Borden & Remington, Fall River, Mass.

Geo. A. Cook, Springfield, Mass.

W. H. Powers, Brockton, Mass.

Homer Godfrey, Sillman & Godfrey Co., Bridgeport, Connecticut.

Frank Howard, Frank Howard Co., Pittsfield, Massachusetts.

I. Freedman, I. Freedman Co., East Cambridge, Massachusetts.

S. F. Hammett, Taunton Teaming Co., Taunton, Massachusetts.

M. F. Petty, Fall River, Mass.

Moses Denault, New Bedford, Mass.

T. Arthur Denault, New Bedford, Mass.

Steve Frederick, H. Wales Lime Co., Meriden, Connecticut.

I. E. Kendall, Milford, N. H.

Alfred J. Rogers, Fiske & Co., Boston, Mass.

John W. Kaup, Fiske & Co., Boston, Mass.

A. V. Felton, New England Lime Co., Danbury, Connecticut.

H. D. Payne, Tuttle Brick Co., Middletown, Conn.

A. Gross, Toch Bros., New York.

Everett L. Prior, E. Stanley Wire Co., Boston, Massachusetts.

Albert Moyer, Vulcanite Portland Cement Co., New York.

Thomas S. Young, Vulcanite Portland Cement Co., New York.

B. L. Swett, Lehigh Portland Cement Co., Allentown, Pa.

W. A. Fuchs, Lehigh Portland Cement Co., Allentown, Pa.

E. S. Larned, Lehigh Portland Cement Co., Boston, Mass.

C. E. Tileston, Lehigh Portland Cement Co., Boston, Mass.

F. C. Wilbrand, Lehigh Portland Cement Co., Boston, Mass.

W. H. White, Lehigh Portland Cement Co., Boston, Mass.

W. J. Burke, American Clay Products Co., Boston, Mass.

R. G. Inge, American Sewer Pipe Co., Boston, Massachusetts.

D. C. Davis, American Sewer Pipe Co., Boston, Massachusetts.

J. B. Jobling, Stone & Webster Co., Boston, Massachusetts.

Isadore Flexner, Klein Mfg. Co., Cleveland, Ohio.

L. Heriman, Beaver Coal & Grain Co., Norwood, Massachusetts.

N. A. Dewitt, Beaver Coal & Grain Co., Norwood, Massachusetts.

T. O. Roberts, Clinton Metallic Paint Co., Clinton, New York.

Charles H. Brigham, Atlas Portland Cement Co., New York.

Geo. H. Drake, Atlas Portland Cement Co., Boston, Mass.

Edward B. Page, Rockland-Rockport Lime Co., New York.

W. E. Healey, Rockland-Rockport Lime Co., Boston, Mass.

E. H. Jacobson, Tomkins Bros., New York.

D. F. W. Douglas, Allentown Portland Cement Co., Boston, Mass.

R. L. Cope, Allentown Portland Cement Co., Allentown, Pa.

J. P. Maloney, Lawrence Portland Cement Co., Boston, Mass.

E. B. Stanley, Stanley Mortar Color Co., Clinton, New York.

A. C. Bruff, Edison Portland Cement Co., Boston, Massachusetts.

H. S. Blanchard, Edison Portland Cement Co., Boston, Mass.

John J. Gallegher, Quincy, Mass.

P. E. Bradley, Edison Portland Cement Co., Boston, Mass.

E. G. Brick, Whitehall Portland Cement Co., Springfield, Mass.

J. W. Stinson, Knickerbocker Portland Cement Co., Boston, Mass.

Geo. M. Clukus, Pennsylvania Portland Cement Co., Boston, Mass.

E. E. Savory, Giant Portland Cement Co., Boston, Massachusetts.

E. S. Roach, Giant Portland Cement Co., Boston, Massachusetts.

John W. Ramsey, Nazareth Portland Cement Co., Boston, Mass.

H. A. Brocus, Palmer Lime Co., New York.

Edgar O. Belden, Palmer Lime Co., Pittsfield, Massachusetts.

H. E. Hilts, Association of Portland Cement Manufacturers, Philadelphia, Pa.

James G. McCabe, Philadelphia, Pa.

H. M. Fetter, Wm. G. Hurtrant Cement Co., Philadelphia, Pa.

J. C. Huxley, Boston, Mass.

C. E. Scrifters, Boston, Mass.

E. Stanley, Boston, Mass.

J. F. Shepherd, Boston, Mass.

Walter F. Allen, New England Steel Roofing Co., Boston, Mass.

E. T. Jackson, New England Steel Roofing Co., Boston, Mass.

C. F. Towne, Niagara Gypsum Co., Buffalo, N. Y.

L. W. Brewster, Niagara Gypsum Co., Buffalo, New York.

E. M. Carmody, Niagara Gypsum Co., Buffalo, New York.

N. A. Aimer, The Hesperes Co., Chicago, Ill.

J. Spence, Detroit, Mich.

John J. Morgan, United Fireproofing Co., New York.

A. C. Macartney, Garry Iron & Steel Co., New York.

E. J. Conley, New York.

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A. M. Goodwin, New York.

Thos. E. Santee, New York.

W. E. Gardiner, New York.

S. T. Bartlett, New York.

Frank A. Keath, New York.

C. W. Smith, New York.

#### Valuable Properties for Sale.

A letter was recently received from A. F. Mesick, of Winston-Salem, N. C., stating that he has two valuable stone properties on the Southern Railroad, near Piedmont, N. C., that he wishes to dispose of.

One of these properties, about 40 miles east of Piedmont, is a limestone proposition and is now running in full operation. The plant is practically new and is equipped with boilers, engines, crushers, houses, kilns and a general equipment necessary to turn out a full capacity of 5 cars a day. It is running at that rate now.

The property of the Southern Broken Stone Co., about 30 miles west of Piedmont, is also for sale. This property consists of 4 large crushers, engines, boilers, storage bins and all equipment necessary to have a daily output of 20 cars of broken stone. The market is a good one in this locality. Mr. Mesick wishes to dispose of these properties immediately.—(Advertisement.)



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Myron C. Falk. Price \$2.50 C
- Reinforced Concrete  
W. H. Gibson and W. L. Webb. Price \$1.00 C
- Hand Book of Cost, Data  
Halbert P. Gillette. Price \$4.00. C
- Concrete Construction  
H. P. Gillette and C. S. Hill. Price \$5.00 C
- Cement Workers' and Plasterers' Ready Reference  
H. G. Richey. Price \$1.50. C
- Reinforced Concrete  
A. W. Buel and C. S. Hill. Price \$5.00 C
- Concrete  
Edward Godfrey. Price \$2.50. C
- Reinforced Concrete  
C. F. Marsh and Wm. Dunn. Price \$7.00. C
- Practical Treatise on Foundations  
W. Patton. Price \$5.00. C
- Concrete  
Thomas Potter. Price \$3.00. C
- Cement and Concrete  
Louis C. Sablin. Price \$5.00. C
- Concrete and Reinforced Concrete Construction  
Homer A. Reid. Price \$5.00. C
- Handbook on Reinforced Concrete  
F. D. Warren. Price \$2.50. C
- Popular Handbook for Cement and Concrete Users  
Myron H. Lewis & A. H. Chandler. Price \$2.50. C
- A Manual of Cement Testing  
Richards & North. Price \$1.50. V
- A Treatise on Cement Specifications  
Jerome Cochran. Price \$1.00. V
- Manual of Reinforced Concrete and Concrete Block Construction  
Chas. F. Marsh and Wm. Dunn. Price \$2.50. V

## Cement and Lime Manufacturers

- Bungalows Camps and Mountain Houses  
Price \$2.00. C
- Limes, Cements and Mortars, Concretes, Mastics, etc.  
G. R. Burnell. Price \$0.60. C
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Geo. P. Carver. Price \$0.50. C
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Edwin C. Eckel. Price \$6.00. C
- Practical Treatise on Limes, Hydraulic Cements and Mortars  
Gen. Q. A. Gillmore. Price \$4.00. C
- Mortars, Plasters, Stuccos, Concretes, Portland Cements and Compositions  
F. Hodgson. Price \$1.50. C
- Concrete Factories  
Robert W. Lesley. Price \$1.00. C
- Portland Cement; Composition  
Richard K. Meade. Price \$4.50. C
- Manufacture of Concrete Blocks  
Wm. M. Torrence and others. Price \$1.50. C
- Practical Cement Testing  
W. Purves Taylor. Price \$3.00. C
- Foundation and Concrete Works  
E. Dobson. Price \$0.60. C
- Reinforced Concrete. Mechanic and Elementary Design  
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- Concrete and Stucco Houses  
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Edward R. Maurer. Price \$1.00. C
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# BOOKS FOR THE BUILDING TRADE

Contractors, Cement Users, Building Material Dealers,  
Estimators, Manufacturers, Engineers

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A mistake in estimating means the difference between a profit or a loss on a contract. In these days of modern construction it is not safe to guess or go by "rule of thumb." Even experienced contractors who rely upon eyesight or rough calculations make costly errors.

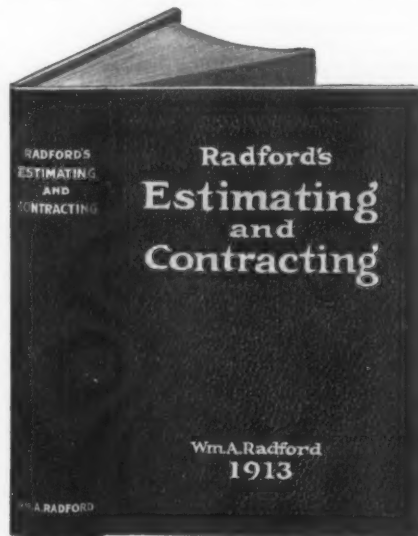
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It gives quotations and other data indicating the cost of materials and labor, standard schedules and forms used for measurements and estimates, labor-saving tables and all other points a contractor, builder or carpenter should know.



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#### ESTIMATING AS A SCIENCE

General Principles of Estimating; Estimating Essential to all Successful Business Operations; Requirements of the Good Estimator; Accuracy Versus Guesswork; What to Avoid in Estimating; Remedies for Inaccuracies.

#### ESSENTIAL BASIS OF ALL ESTIMATING

Analysis of Proposed Operations; Cost Finding and Cost Distribution.

#### CONDITIONS AFFECTING COST

Local Market Conditions; Freight and Haulage; Rates of Wages Paid in Various Trades.

#### METHODS OF ESTIMATING

Comparative and Analytic Methods; Approximate Detailed Estimates from Carefully Figured Data; Estimating by Cubical Contents of Similar Structures; Estimating by the Square of 100 Sq. Ft.; Estimating by Quantities; Unit-Cost for Materials.

#### COST FACTORS CLASSIFIED

Factors Common to Construction in General; Factors Involved in Special Types of Construction; Factors Incidental or Accessory to Various Constructions.

#### COSTS COMMON TO CONSTRUCTION IN GENERAL

Leveling and Preparing Site; Employer's Liability Insurance; Water Supply During Construction; Number of Men and Teams Required; Rates of Wages; Cost of Superintendence; Earth and Rock Excavation; Foundations and Footings; Back Filling.

#### COSTS INVOLVED IN SPECIAL CONSTRUCTION

CARPENTRY WORK  
Measurements; Timber and Lumber (Grades and Sizes),

#### MILL WORK

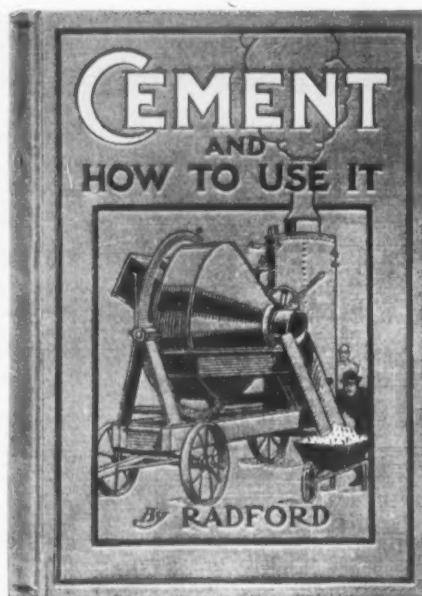
Doors and Door-Frames; Sash and Window Frames; Blinds; Transoms; Mouldings; Columns and Capitals; Cupboard Doors; Store Fronts; Thresholds; Stairs and Handrails; Newels and Balusters; Grills and Spindles; Mantels and Consols; Chair and Plate Rails; Wainscoting; Screens; Weather Strips; Clothes Line Posts

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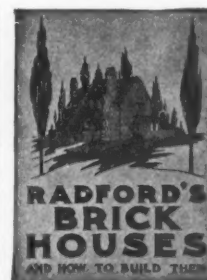
"Cement and How to Use It" is the largest book of its kind ever published. It consists of 370 pages, size, 6x9 inches, and is printed from large clear type on a high grade book paper, especially made for it.

"Cement and How to Use It" is written so that any reader can understand any page, every term used, and every detail shown. It is entirely free from technicalities, and yet its pages are filled with practical information for all classes of cement users.

Two thousand topics relating to cement are discussed in this great, new book. No book attempting to treat this important subject has ever before so successfully covered the ground.

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This large book of 176 (8x11 inch) pages contains illustrated details of cement construction—standard specifications for cement—concrete blocks—general information concerning waterproofing, coloring, aggregates, mixtures, paving, reinforcing, foundations, walls, steps, chimneys, floors, etc., together with perspective views and floor plans of 87 stucco and concrete block houses.

The illustrations show the houses exactly as they will look when built and give a very clear idea of their appearance. All the floor plans are shown, giving the location and dimensions of all rooms, closets, porches, etc., with detailed information as to both interior and exterior.

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Faerberhill Mfg. Co. (bag tyers).  
Urschel Bates Valve Bag Co.  
West Jersey Bag Co., The.

## BELTING.

H. W. Caldwell & Co.  
Chicago Belting Co.  
Dull & Co., R. W.  
B. F. Goodrich & Co.  
Imperial Belting Co.  
Main Belting Co.  
Stephens-Adams Mfg. Co.  
Webster Mfg. Company.  
Weller Mfg. Co.

## BRICK.

Alliance Clay Products Co.  
Alliance Brick Co.  
American Brick & Tile Co.  
Belden Brick Co.  
Hocking Valley Clay Co.  
Mason City Brick & Tile Co.  
Metropolitan Paving Brick Co.

## BRICK CLAMPS.

The P. D. Crane Co.

## BRICK PAVING.

Alton Brick Co.  
Harris Brick Co.  
Metropolitan Paving Brick Co.  
National Paving Brick Mfrs. Assoc.

## BUCKETS, DUMPING AND GRAB.

Atlas Car & Mfg. Co.  
H. W. Caldwell & Co.  
Hendrick Mfg. Co.  
Owen Bucket Co.  
Willis Shaw Mch. Co.

## CABLES.

American Steel & Wire Co.  
Dull & Co., R. W.  
Sauerman Bros.

## CASTINGS.

Edgar Allen Amer. Mang. Steel Co.  
Taylor-Wharton Iron & Steel Co.

## CEMENT BRICK, BLOCK AND TILE MACHINES.

W. E. Dunn Mfg. Co.

## CEMENT, HYDRAULIC.

Carolina Portland Cement Co.

## CEMENT, PORTLAND.

Atlas Portland Cement Co.  
Canada Cement Co.  
Carolina Portland Cement Co.  
Chicago Portland Cement Co.  
Coplay Cement Mfg. Co.  
Dexter Portland Cement Co.  
French, Samuel H., & Co.  
Giant Port. Cement Co.  
Kansas City Portland Cement Co.  
Lehigh Portland Cement Co.  
Marquette Cement Mfg. Co.  
Northwestern States Portland Cement Co.  
Ohio & Western Lime Co.  
Peerless Port. Cement Co.  
Phoenix Portland Cement Co.  
Sandusky Portland Cement Co.  
St. Louis Portland Cement Works.  
Security Cement & Lime Co.  
Union Sand & Material Co.  
Universal Portland Cement Co.  
Vulcanite Portland Cement Co.  
Whitehall Portland Cement Mfg. Co.  
Wolverine Portland Cement Co.  
Woodville Lime & Cement Co., The.

## CHAINS.

Edgar Allen Amer. Mang. Steel Co.  
Columbus Chain Co., The.  
Jeffrey Mfg. Co.  
Taylor-Wharton Iron & Steel Co.

## CLAYWORKING MCHY.

American Clay Mch. Co.  
Bartlett, C. O., & Snow Co.

## COAL CHUTES.

Kewanee Mfg. Co.

## CONCRETE MIXERS.

W. E. Dunn Mfg. Co.  
Jaeger Mach. Co.  
Miscampbell, H.  
Twentieth Century Mixer Co.

## COLORINGS, DRY AND MORTAR.

Samuel Cabot.  
Chattanooga Paint Co.  
Clinton Metallic Paint Co.  
Macneal, James B., & Co.  
Ricketson Mineral Paint Works.  
Williams, C. E., & Co.

## COMPRESSORS.

Clayton Air Compressor Co.

## CEMENT FLOOR HARDENERS.

Carbo-Lundum Hardener Co., The.

## CONCRETE REINFORCEMENT.

American Steel & Wire Co.

## CONVEYORS AND ELEVATORS.

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Austin Mfg. Co.  
Bartlett, C. O., & Snow Co.  
Caldwell, H. W., & Sons Co.  
Dull, Raymond W., & Co.  
Ehrsam, J. B., & Sons Mfg. Co.  
Goodrich Co., The B. F.  
Link Belt Co.  
Jeffrey Manufacturing Co.  
McLanahan Stone Machine Co.  
Stephens-Adams Mfg. Co.  
Webster Mfg. Company.  
Weller Mfg. Co.

## CONSULTING GEOLOGISTS.

Grimsley, G. P., Ph. D.  
Robt. W. Hunt & Co.  
Lewis & Co., W. J.

## CRUSHERS AND PULVERIZERS.

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American Pulverizer Co.  
Austin Mfg. Co.  
Bacon, Earl C.  
Bartlett, C. O., & Snow Co.  
Bonnot Co., The.  
Bradley Pulverizer Co.  
Butterworth & Lowe.  
Ehrsam, J. B., & Sons Mfg. Co.  
Gardner Crusher Co.  
Gründler Patent Crusher & Pulverizer Co.  
Jeffrey Manufacturing Co.  
Kent Mill Co.  
Lewistown Foundry & Machine Co.  
Martin, Henry.  
McLanahan Stone Machine Co.  
Pennsylvania Crusher Co.  
Power & Mining Mach. Co.  
Raymond Impact Pulverizer Co.  
Symons Brothers.  
Sturtevant Mill Co.  
Taylor-Wharton Iron & Steel Co.  
Williams Pat. Crusher & Pulverizer Co.

## DRAIN TILE.

American Brick & Tile Co.  
American Clay Co.  
Mason City Brick & Tile Co.

## DRILLS.

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Armstrong Mfg. Co.  
Cyclone Quarry Drill Co.  
Howells Mining Drill Co.  
Loomis Machine Co.

## DRYERS.

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Bartlett, C. O., & Snow Co.  
Ruggles-Coles Eng. Co.  
Worrell, S. E.

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Atlas Car & Mfg. Co.  
Austin Mfg. Co.  
Stephens-Adams Mfg. Co.  
Weller Mfg. Co.  
Youngstown & Car Mfg. Co.

## ENGINEERS.

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A. P. Broomell.  
Dull, Raymond W., & Co.  
Fuller Engineering Co.  
Grimsley, G. P.  
Robt. W. Hunt & Co.  
Improved Equipment Co.  
Kirkpatrick, W. C.  
Lewis, W. J., & Co.  
Mowde, R. K.  
Nat'l Engineering Co.  
Sauerman Bros.  
Schaffer Eng. & Equip. Co.  
Smith & Co., F. L.  
Stephens-Adams Mfg. Co.  
Woodford Engineering Co.

## ENGINES.

Busch-Sulzer Bros.-Diesel Engine Co.  
Novo Engine Co.

## EXCAVATORS.

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Indianapolis Cable Excavator Co.  
Sauerman Bros.  
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Improved Equipment Co.  
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Improved Equipment Co.

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Caldwell, H. W., & Son Co.  
Stephens-Adams Mfg. Co.  
Taylor-Wharton Iron & Steel Co.  
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American Keene Cement Co.  
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Carolina Portland Cement Co.  
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Niagara Gypsum Co.  
Ohio & Western Lime Co.  
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Hannibal Lime Co.  
Kelley Island Lime & Trans. Co.  
Mitchell Lime Co.  
The Moores Lime Co.  
National Lime & Stone Co.  
National Mortar & Supply Co.  
Niagara Gypsum Co.  
Ohio & Western Lime Co., The.  
Owens Lime Co.  
Scioto Lime & Stone Co.  
Security Cement & Lime Co.  
Woodville Lime & Cement Co.

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Kelley Island Lime & Transport Co.  
Mitchell Lime Co.  
The Moores Lime Co.  
National Lime & Stone Co.  
National Mortar & Supply Co.  
Niagara Gypsum Co.  
Ohio & Western Lime Co., The.  
Owens Lime Co.  
Scioto Lime & Stone Co.  
Security Cement & Lime Co.  
Woodville Lime & Cement Co., The.

## LIME KILNS.

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Dunning, W. D.  
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Summit Silica Co.  
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McLanahan Stone Machine Co.  
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Ceresit Waterproofing Co.  
Maumee Chemical Co.  
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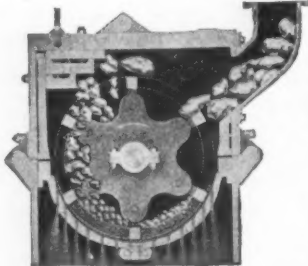
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## Demonstration Plant

entirely at your disposal, where we will be pleased to illustrate the following facts:

### The Gardner Crusher

1. Is of the hammer type.
2. Will crush any kind of material.
3. Requires comparatively very low power for its capacity.
4. Needs no special foundations and is easily transported.  
(Heaviest piece in No. 1 is only 350 lbs.)



#### Made in Four Sizes

Size	Weight Lbs.	Power	Feed	Capacity (Tons per Hr.)
No. 0	1,200	5-6 h. p.	3 in.	1-1½
No. 1	2,000	10-12 h. p.	4 in.	3-4
No. 2	4,000	20-22 h. p.	6 in.	8-10
No. 3	8,000	40-45 h. p.	10 in.	15-20

Equipped with ½ in. screen through which everything will pass.

90% through 20 mesh. 60% through 60 mesh.  
75% through 40 mesh. 50% through 100 mesh.  
65% through 50 mesh. 30% through 200 mesh.

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AGENTS FOR BEST BROS. KEENE'S CEMENT

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**Capital \$1,500,000**

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**THE OHIO AND WESTERN LIME CO.**

Manufacturers and Wholesale Dealers in

**Ground Lime, Lump Lime, Fertilizer, Rock Wall Finish, Hydrated Lime, Cement, Plaster, Hair, Etc.****CAPACITY 8000 BARRELS PER DAY**

We have large stone crushers at various places. We make a Magnesia and high Carbonate of Lime. All of these limes are the very best on the market.

**THE LARGEST IN THE WORLD**

**WORKS AT** Huntington, Ind.; Fostoria, O.; Gibsonburg, O.; Sugar Ridge, O.; Tiffin, O.; Genoa, O.; Limestone, O.; Lime City, O.; Portage, O.; Marion, O.; Bedford, Ind.

**OFFICES AT**

Huntington, Ind.

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Where building laws are stringent and inspectors super-critical, Monarch Hydrate has never failed to pass successfully all required tests and save the builders vast sums of money and an immense amount of time. Time is an important item—Why waste it? We invite you to join the procession of joyful, satisfied, money-saving users of MONARCH HYDRATED LIME. We Ship Sudden.

**THE NATIONAL LIME & STONE COMPANY**  
CAREY, O.

**IF IT IS  
LIME  
WE MAKE IT**

**B**ULK and Barrel --- Mason's Hydrate for brick work and Masonry. --- Try a car load of our "LIME FLOUR" Hydrated Finishing Lime and you will find same to be second to none on the market. --- "CLOVER GROWER" for the farmer—Best made. Can ship promptly. A dealer is wanted in every city.

**WRITE FOR PRICES**

**THE SCIOTO LIME AND STONE CO.**  
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**A**RE you getting a benefit from our special information bureau? If you are in the market for something and do not find it advertised, just ask us; we will tell you where you can get it. Ask us anything; we will answer your question promptly.

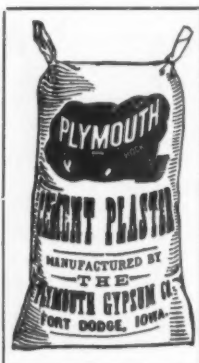
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We have the finest gypsum rock in the country and our plant is equipped with the latest and best machinery, this assures you that you will handle the very best line of plaster—when you represent us. OUR MOTTO IS QUICK SHIPMENTS.—We have a daily capacity of 300 tons. **Write us today for prices, etc.**

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### PLASTER

WOOD FIBER  
PLASTER

Fireproof Partition Blocks  
Sackett Plaster Board  
Steel Studding

Known as Brands of Quality

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FORT DODGE, IOWA

### SUBSCRIPTION

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United States Custom House and Postoffice, Omaha, Neb.  
KALLOLITE PLASTER USED

## Kallolite Cement Plaster

Was used on the Omaha Post  
Office, as well as many other

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Kallolite Cement Plaster is manufactured from the Purest Gypsum Rock found in the United States as shown by last Government Report.

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**ALTON, ILLINOIS**

Makers of High Quality Brick for  
**ROADWAYS AND PERMANENT BUILDINGS**  
 REPPRESSED AND DUNN WIRE CUT-LUG BLOCK.

**"WORK SCENES"**

a new publication illustrating the fundamental steps of  
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Use "Grafton" Shale or Fire Clay Block  
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**WE WANT YOU**

THAT IS, IF YOU'RE A PROGRESSIVE  
 HUSTLER AND WANT US

We want good, reliable agencies, for our face brick. We manufacture smooth face and rough wire-cuts, both in shale and fire clay. The shale burns quite dark and the fire clay "old gold" or brown. Both the shale and fire clay brick are thoroughly vitrified. Write us for samples, prices, etc.

**The Alliance Brick Co.**  
 Alliance, O.

## Pave With Brick

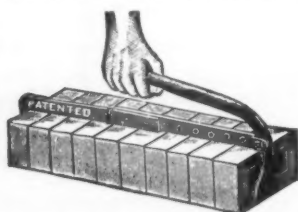
**Well-Paved Brick  
 Roads are Still in Use**

**After Twenty Years of Service**

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

## BRICK—The Old Way of Handling Them is a Nuisance

In tossing brick out of a car many are broken. A wheelbarrow doesn't carry enough bricks to warrant the time it takes to load, wheel it out and dump it.



### Use a CLEVELAND BRICK CLAMP

*It is the Newest and Quickest Way*

Furthermore, in unloading brick it actually saves ONE-THIRD of the time over the old methods. This clamp is adjustable and will carry from FOUR to TWELVE bricks. There's no fuss or bother. Simply place the clamp down on the bricks and lift the handle.

The price? It is so inexpensive ANYONE can afford it. Just send your name on a postal and we'll send a neat catalog and price list.

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Incorporated 1893

**Sales Offices:**

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## FOUR MODERN FACTORIES

producing practically every color and texture of Face Brick put us in position to take care of the dealer to the best possible advantage. It will pay you to have our samples and prices. Write now.

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## INSPECTION TESTS AND CONSULTATION CEMENT & STRUCTURAL STEEL

INSPECTION OF ALL CONTRACTORS' EQUIPMENT NEW OR 2nd HAND—INSPECTION OF ALL MATERIALS OF CONSTRUCTION

**Tests of Paving Brick, Steel & Iron—Chemical Laboratories**

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OF FIRE CLAY

That won in the test in Louisville, Ky., April 26th, showing  
43 per cent greater strength than competitors.

This means your customers will bring you repeat orders.  
We co-operate with dealers.

**CANNELTON SEWER PIPE CO.,**  
CANNELTON, IND.

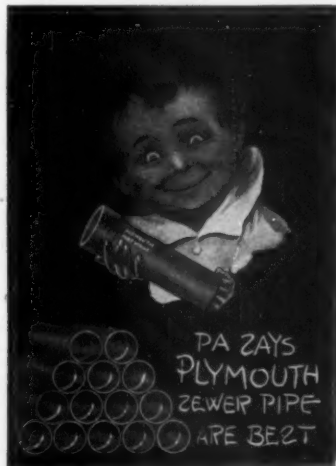
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Standard Sewer Pipe  
Double Strength Pipe Wall Coping  
Chimney Tops Building Blocks  
Flue Linings Stove Pipe  
Thimbles Fire Brick  
Drain Tile

AND OTHER FIRECLAY PRODUCTS

TWO BIG PLANTS ∴ 4,500 CARS ANNUAL CAPACITY



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FORT DODGE, IOWA

**It May Pay You  
To Purchase.....  
Sewer Pipe  
Flue Lining  
Wall Coping  
and other Clay Products**

FROM

**The Thompson-Armstrong Co.**  
Provident Nat'l Bldg., Cincinnati, Ohio

## DEALERS PROFIT SHARING LINE



Fire Proof Weather Proof Acid Proof

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No. 2—2 inch RADIUS FULL NOSE

No. 5—2 inch RADIUS BULL NOSE  
SILL and JAMB MITRE

DEALERS—Write Us For Our  
Special Proposition, Also For Our  
Large Illustrated Catalog.

**The Hocking Valley Fire Clay Co.**  
NELSONVILLE, OHIO



Standard for quality. Partition Tile, Wall Tile, Floor Tile, Furring Tile, Hollow Blocks, Heavy Load Bearing Tile. All sizes. All styles. Drain Tile and Brick. Established 1882. Write for booklet and prices.

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**Mason City, Iowa**

WHEN IN NEED OF

## Dark Red Wire Cut Shale Facing Brick

ADDRESS YOUR INQUIRY TO

**The Alliance Clay Product Company**

ALLIANCE, OHIO.



## ATTENTION DEALERS

Our two large Factories have a capacity of 5000 cars a year. We are in a position to supply your requirements for Common and Hollow Brick, Hollow Building Blocks, Fire-Proofing and Partition Tile, Vitriified Drain Tile from 4 to 24 inches. We also manufacture the INFINITEX SILO BLOCK.

Write for further information and prices

**AMERICAN BRICK & TILE CO.,**

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## The Dealer Who Sells Whalebone Wall Ties

is assured of satisfied customers and repeat orders. There is a big profit for the dealer who sells our goods.

Standard Size, 7 inches long x  $\frac{1}{8}$  inches wide



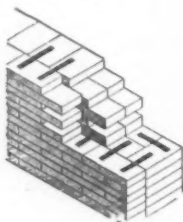
Whalebone Wall Ties

Used for solid brick or veneered walls. Packed 1000 in a box. We want dealers to sell our wall ties and nailing plugs. Write us for our special proposition.

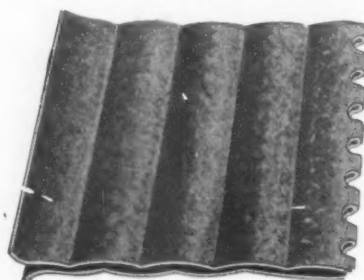
We shall be pleased to mail you samples.

2  $\frac{1}{2}$  inches long x 2  $\frac{1}{2}$  inches wide

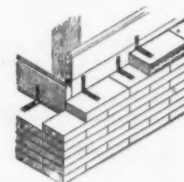
Drop us a line, let us know you are interested.



Tie for Solid Wall



Nailing Plug



Tie for Veneered Wall

We protect the dealer. Write us for our price to you.

We create the demand by Advertising in Contractors and other publications.

**ALLEGHENY STEEL BAND CO.,**

**Pittsburg, N. S., Pa.**

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS \*





## Over 40 Years' Experience Built Into This Machine

The experience of over two-fifths of a century in designing and building drilling machines for all kinds of deep drilling has enabled us to incorporate the most practical knowledge of the requirements in the design of

### The "New American" Blast Hole Cable Drilling Machine

First of all the machine is built low to give it greatest stability, and the derrick is placed at one side of the center to balance the band wheel on the other.

The derrick is one of the strongest ever constructed and is designed to be raised by the power of the machine.

The important feature of the design of this machine is that it carries drilling tools weighing up to 1200 pounds, and the machine is so simple in design that it is not of excessive weight and therefore readily portable.

It delivers 55 to 60 strokes per minute and will maintain a speed of 60 strokes per minute in a dry hole to a depth of 40 feet.

It will drill 50 to 100 feet of 5½ inch hole in a 10-hour day in average working conditions. Not a *record* day, mind you, but *average conditions*.

The drilling tools are always *hung up* off the bottom when spud beam is stopped and always start on the *down stroke*.

There are no gear wheels or clutches and the spuding motion is stopped instantly regardless of the speed of the engine.

Fitted with gasoline, steam, or electric power.

Bulletin 129 tells about this improved machine. Shall we mail you a copy?

### The American Well Works

General Office and Works:  
**Aurora, Ill.**

Chicago Office:  
First National Bank Building



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# WELL DRILLS ARE NOT BLAST-HOLE DRILLS

This is an age of specialization—Contractors and Quarry Operators who use Armstrong Special Blast-Hole Drills do so because the "Armstrong Special" is designed exclusively for drilling BLAST HOLES—NOT WELLS.

"Armstrong Special" Blast-Hole Drills are not well drills. We build well drills and have been since 1867, but we know, as do scores of successful contractors and quarrymen, that well drills are not designed for and will not stand the grief of blast-hole drilling (a comparison of machines which have been in operation for a reasonable period of time will convince you). Behind our knowledge is fifty years of drill building experience—behind the experience of users is the knowledge that ARMSTRONG machines are not only more efficient, but the repair, operating and "upkeep" expense is much less, due to the fact that

**The Armstrong Special Blast-Hole Drill is the only Cable Blast-Hole Drill designed and sold exclusively for Blast-Hole Drilling**

**That is why it accomplishes more for the Quarryman and Contractor than any machine of any other type**

Armstrong Special Blast-Hole Drills operating in Kosmosdale quarry of Kosmos Portland Cement Company, Louisville, Kentucky. Capacity of plant 3000 barrels daily



This view shows that the Armstrong "Special" is adapted to almost any quarry condition.

Every working part of the "ARMSTRONG" Special Blast-Hole Drill is designed with direct reference to hard rock drilling. The "ARMSTRONG" spudding beam—the most important feature—gives a quick, sharp, springy blow that drills more hole at less cost than any other. The "ARMSTRONG" raises the tools as fast as they drop and **does not allow the tools to rest at the bottom of the hole** as in the case of well drills.

## Judge for Yourself

If we can prove to you that the "ARMSTRONG" will drill blast holes cheaper and better than any other machine, you surely want to know it. All you have to do is send a postal asking for proof of "ARMSTRONG" Special Blast-Hole Drill superiority, and address today to



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**I**f you knew positively that you could free yourself from further bag trouble, and all delays and waste of money, you certainly would take steps toward that end. The Bates System Valve Bagger with valve paper bags for sacking Cement, Lime, Plaster, Alco, Ground Stone, etc., will do the work you want automatically and accurately fill and weigh every sack. 150 tons per day of lime—one machine.

*Write for Particulars.*

**The Urschel-Bates Valve Bag Co.**

TOLEDO, OHIO

BRANCH PLANT:

NIAGARA FALLS, ONT., CAN

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The Largest Lime Plant Individually Owned  
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**Marion Lump Lime in Barrels**

**Mason's Hydrate Clover Leaf Brand**  
**Finishing Hydrate Star Brand**

**Agricultural Lime All Kinds**

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QUICK SERVICE

**John D. Owens & Son**

Owens, Marion County, Ohio



## Handle Metal Lath

### Kno-Burn Metal Lath Sells Itself

Contractors and architects know the superiority of Kno-Burn Metal Lath by actual building experience. Our national advertising is educating the home-builder to insist upon "Northwestern" Products over unknown brands.

**Kno-Burn**  
**Expanded Metal Lath**  
For Every Kind of Interior Plastering Work

**Kno-Fur**  
**Expanded Metal Lath**  
For Stucco Work and Overcoating Old Houses

**XX Century**  
**Expanded Metal Lath**  
An Acid-Proof Lath for Inside and Outside Plastering

Here are three products that meet every requirement of the architect and the builder.

"Kno-Burn" Expanded Metal Lath insures walls of permanent smoothness and beauty. The plaster SURROUNDS the mesh which it grips permanently. It will not rust out, and it is made in long sheets that are easily handled.

"Kno-Fur" Expanded Metal Lath can be applied without the use of furring and sheathing. Diagonal "U" shaped ribs in the metal take their place. These ribs are as rigid proportionately as the trusses of a steel bridge. It is applied directly to the studding. For covering old houses "Kno-Fur" can be applied directly over the old clapboards or they can be removed and the metal lath put right on the studding. These features make it indispensable for building contractors and give it big sales possibilities.

"XX Century" has all the good construction points of Kno-Burn and in addition is proof against acids in the plaster.

The reputation of the biggest expanded metal lath manufacturers in the world is behind every one of these products.

These products are in demand all over the land. Handle them and get your share of the profits.

Send for booklet No. 295, "Metal Lath for House Construction", and ask for prices.

**North Western**  
**Expanded Metal Company**

929 Old Colony Bldg.

Chicago, U. S. A.

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